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OF

MODERN WINES.

BY

CYRUS REDDING.

THIRD EDITION, WITH ADDITIONS AND CORRECTIONS.

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TO THE READER.

Circumstances apart from the present undertaking, called the Author to the Continent a considerable time before the first edition appeared. He was absent three years, the greater part of which was spent in the midst of the finest vine districts in the world. His attention was first called to the subject accidentally, while he had ample opportunities of observing the modes in which the culture of the vine was conducted, its fruit collected, and the product cellared. While his own observations were not few, he omitted no means of gaining information from individuals experienced in all relating to the vineyard and the vintage. Regarding the culture of the vine in the Peninsula, he has again to acknowledge himself under great obligations to several individuals who are residents there.

The Author hopes that he will not be found to have attached greater value to any particular class or quality of wines than the weight of evidence will sanction. He has en-

deavoured to be strictly impartial, and to compress all the information available in a moderate compass, without either overloading the subject or neglecting necessary illustration.

The additional observations and researches, which are considerable, have occasioned some little alteration of form in the arrangement of the chapters of the present edition. Time and commerce have introduced many changes, which it becomes necessary to record. Our own colonies are sending us importations, which bid fair, at no distant period, to be worthy of very particular notice.

It is hoped that the opinions here promulgated are just in the main, and that in discriminating between what is pure and genuine and what factitious, the truth is fairly sought. We must not only endeavour to be useful, but to be so honestly; and where the benefit is universal this should operate as an additional stimulus.

C. R.

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A HISTORY AND DESCRIPTION

OF

MODERN WINES.

PREFACE.

Two editions of this work having been required, nothing could be more decisive of a favourable reception. The present or third edition contains much additional matter; various corrections have been made, and the price has been reduced.

The author did not intend to add anything more to his announcement in the first edition, had it not come to his knowledge that interested individuals considered he had done injustice to the merits of the red wine of Portugal. He was charged with depreciating port wine in that edition, and laying upon the Oporto wine monopoly the burden of evils existing in his own imagination alone, seeing that the monopoly had been destroyed, and that, whether the monopoly existed or not, the wine of Oporto was the only proper wine for this country.

The common sense of the public is insulted by an assertion, that duties to favour one nation at the expense of all others are wise, honest, or beneficial. The wines imported must be paid for by exported manu-

factures of some kind, either in direct interchange, or by a more circuitous operation. Wool had no claim to protection on export over iron or cotton. Such a distinction was an injustice to consumers; it obliged them to pay a high price for what they purchased, and it encouraged monopoly. Right principles will ever finally prevail in commercial legislation, and baffle the caprice, or false views of a minister. In the present instance they have triumphed, and the country confesses its obligations to that clearer insight into the principles of trade, which made government abolish the Portuguese monopoly. It is thus of great importance to have right principles acknowledged by those who rule,—retraction becomes impossible, and the future will effect all else that is desirable. But, although the Methuen Treaty is no more, the same cannot be said of the system it organised, of its spirit, of the habits it generated, of its ill-treatment of the vinous product, its local influence, its prejudices, and its struggles to maintain prices by capital previously invested. The preference for Port wine in England at first, not because it was the best wine, but because the duty was formerly low, had, from the inveteracy of habit, rendered a proper examination of the simple question—what "qualities really constitute good wine"—impossible to be considered. The predilections of a century were in its favour. Time alone could alter these, and direct into another channel the capital employed in sustaining the high prices and sophistications of Port wine. The wine of Oporto is the standard by which Englishmen were once led to judge of all other kinds of wine, a good natural growth injured by bad management.

The effect of the monopoly was twofold: it depreciated the good wine, blending together vintage after vintage, and burying merits and defects alike in a sea of brandy, because "quantity paid better than quality," and it raised the prices of the wines exorbitantly. Thus, imitations of Port wine were rendered worthy of study, and importations from France were effected under that name by transhipping, while the heavier duty on French wines was evaded. I have shown that very large quantities of wine have been received into this country and drunk as Port, without the discovery of their origin; and, secondly, I have touched briefly upon the consequences which may ultimately follow this knowledge and the equalisation of the duties, for to this last measure succeeded changes in commerce as respect wine, which are very far from being apprehended in all their extent.

When long-established monopolies, and the mischiefs they generate, become prejudicial to the consumer, changes cannot be remote. The Oporto trade was too long a serious injury to the people of England. The concentration of British capital, and the unwearied activity of British merchants acting on the Company, it succeeded in raising the price of the wine enormously. It was not any fresh demand on the

part of the consumer, making the commodity scarcer, but a monopoly in the management of the market by the capitalist, that caused this increase of price. When commodities can be sold or withheld at pleasure, and be mingled and adulterated with no regard to the natural principle of the article in adherence to blind cupidity, the result will ultimately defeat expectation. The price, too, ceases to be the natural market value, which becomes in consequence forced and factitious. That which is morally unsound may flourish for a time, but it is liable to be destroyed on the occurrence of contingencies that seem in themselves very insignificant. The basis for all enduring transactions is the rock of right principle.

The object of these observations is a public one. Every clear-sighted merchant must know that what benefits the public benefits himself. To uphold the cause of the public, is to support the best interest of the home merchant. The public have a right to candid and honourable dealing; and now, it must be added, when all foreign wine countries, save the Cape, are open to England at one rate of duty, it is proper that every wine should be rightly designated, that every variety should come openly into the market, and that Englishmen should be able to choose for themselves, not drinking wines of Cette, Beni Carlos, or Roussillon, or adulterated Oporto wine as genuine port, but for what they really are, whether in respect to merit or price. It has also been deemed right to show to the world, what no one can gainsay, that we have been drinking in this country for a long time the wines of other countries as port wine: such wines entering under that appellation and rate of duty. This statement has been proved in the sequel.

The temptation to call wines by fraudulent names has been great, but the common sense of the public will find out the secret; a little time only being required for that purpose. The wines of the south of France are now made to suit the English taste, which values wine, not for its ripeness or vinosity, but for its heat and fruitiness. The stock of old French wine of the south has been so much in demand in Brazil, the north of Europe, and in England also, under the name of Port, that the supply was not at one time adequate to the demand although the production was abundant.

The author shows that the stock of Portuguese wines, when abundant, bore an excessive cost, owing to artificial causes; and that makers must attend to the pure growths, and descend to fair prices again, or they will be supplanted by other wines of vinous qualities more than equal to those that the British public have drunk heretofore.

Such is the nature of what was deemed worthy of consideration in the former and present observations upon the wines of Portugal in this work. The author trusted that he had answered those who censured his previous remarks. He saw no necessity for making such

facts more prominent in his first edition, intending to give the reader his own opinions, without the data on which they were formed; indeed, after that edition went to press, he accumulated new facts. Those opinions were stated to be wrong, the Port wine trade to have always been a most advantageous one for the public, and the wine itself as beneficial for the stomachs of Englishmen as any that nature bestows. If only nature was concerned, this might be true: the author condemned the interference of art in the business; and it is here "issue was joined," as the lawyers say. This preface, he trusts, explains his remarks upon Oporto wines in his first edition.

Continual changes occur in the modes of treating the product of the vintage, and new growths appear. There is a considerable alteration in the taste of those who take the better classes of wine since this work went first to the press. Wines artificially strengthened and skilfully adapted to the tastes of all orders of consumers with the same name and quality ascribed to all, are now rejected for natural growths, which are cooler and more exhilarating. The tendency of all refined persons of the present day is to the purer and better growths, and of such wines new varieties have been introduced by the best merchants. The long interval of peace enjoyed in Europe has made individuals of competent means better acquainted with the choice wines of Europe, and among such, less of some of the old and customary kinds have been taken. The same circumstance has probably tended to a less consumption of every kind at the table. People do not now sit as long as their fathers, and in both the foregoing respects lean towards an imitation of their continental neighbours. There is an increased desire peculiar to the time everywhere, in all classes, to become as much as possible acquainted with the nature of what tends to luxury or comfort, and in regard to a very ancient contribution to living enjoyment in all ages and nations the information sought will, it is hoped, be found improved in this upon the preceding editions.

The author is gratified to find that some of his prognostications on the subject of changes in the public feeling in regard to wine have been fulfilled in the advance of a purer taste. The value set upon German wines in proportion to their extravagant age has died away. These wines, some of the most pure, perfect, and healthy in the world, are now drunk in perfection at a reasonable time after the vintage. There are several other circumstances which might be noticed of a similar character, which the reader will find in the body of the work. The processes pursued at the vintage are more minutely given in one or two instances than was done before. The means by which the great end of fermentation is conducted, are so varied, yet the termination is so uniform, that to burden the text with new details, which have reached the author's hands, would be superfluous.

C. R.

London, October 1, 1851.

CHAPTER I.

ON ANCIENT AND MODERN WINES.

INTRODUCTORY REMARKS ON ANCIENT WINES—WRITERS UPON THE SUBJECT—CONFLICTING STATEMENTS—WINE IN ENGLAND—PRICES OF WINES FORMERLY—SUPERIORITY OF FRANCE AS A WINE COUNTRY.

THE separation of all knowledge which is of a useful character from pedantic terms and idle conjectures, seems explained by the demand for works which convey as much as possible of fact. Man is a more active animal than he ever was before. While human life appears to have received prolonged duration, the gift seems conferred only to stimulate activity and leaves the impress upon the mind, that years fleet with accelerated rapidity.

Yet the interest connected with the present subject cannot be denied. If an equal attraction in ancient as well as modern times be a virtue, that virtue belongs eminently to wine. Sacred and profane history have alike dwelt upon it. Even the name, so similar in the more civilised nations, evinces the universality of it as a subject. In England we call it *wine*, not from the Latin *vinea*, which we have transferred to the tree that produces it, but from the French *vin*, or Anglo-Saxon *win*, or German *wein*, Dutch *vinn*, Danish *wyn*, or, as our tongue is so complex, from more

southern countries, as the Latin *vinum*, the Italian *vino*, the Spanish *vino*, or the Portuguese *vinho*. The Greek *oinos* is clearly not of the same family origin.

Among the ancients, the value for wine, expressed in many ways, was in none more strongly so than in mingling it with their mythology. Osiris, or the sun, in Egypt, was the source whence the Greeks drew their beautiful fable of "Dionysus, or Bacchus born of Semele," "to be a joy to mortals." Egypt and Palestine had wine at a very early period. The history of Noah's drunkenness, and of Pharoah and his butler, are the oldest accounts of wine that have reached us. The Mareotic wine of Egypt was a white wine, mentioned by Horace. Meröe was a wine country of that kingdom. There were wines grown near Alexandria. The Tæniotic is mentioned as an Egyptian wine. Phoenicia had her wines of Byblos, and there are wines recorded as being grown in Lydia, at Tmolus. Though wine is alluded to in sacred history, the names of only two kinds have come down to the present day, one of which is that of Lebanon, the other that of Helbon, near Damascus, which the Romans called Chalybon, supposed to be a sweet species. Homer mentions wines which it may be presumed were of the sweet kind, from the epithets applied to their description. The wine of Maronea, in Thrace, is mentioned in the "Odyssey," named from Maron, a priest of Apollo, and grown on the hill of Ismarus, supposed to have been of a very potent quality. Almost all the Greek islands produced wines, many of which were *vino cotto*, or boiled, used either alone or to mingle with other growths. Honey and different substances were mixed with them, and sometimes drugs. Crete, Lesbos, Thasos, and Chios were noted for their wines. The Phanean wine was grown in Chios, the most celebrated of all the islands for the character of its growths. The Roman, Lucullus, never saw more than a single cup of this wine served up at one time at the table of his father. Rhodes, Corcyra, Zante, Cos, and other islands, are alluded to by ancient writers as having their own wines. The Mendean wine was from Thrace, and the Malmsey of the present day owes its origin in the renowned land of Greece, to the Morea, known a few hundred years since as Malvasia and Romania.

The Greeks seem to have had peculiar ideas of wine.

They mingled sea-water with their wine before drinking it, which they thought improved its flavour. It was boiled before the mingling. The Romans copied the example, which originated in the effort of a slave to prevent detection, who, having robbed his master's cask, filled it up with salt water. The Romans borrowed from the Greeks, however singular the custom might be, whatever was their fashion. The substances they mingled in their wines were of opposite characters, and must have destroyed the natural qualities. Besides salt water, they infused asafœtida, tar, bitumen, pitch, myrrh, aloes, gums, pepper, spikenard, poppies, wormwood, cassia, milk, chalk, bitter almonds, and cypress. All these were steeped, each or more than one of them in the different wines drunk by both Greeks and Romans.

The ancients exposed their wines to the action of smoke, in a sort of kiln or chamber called a *fumarium*, which thickened and matured them. It would appear that their wine was made from vines suffered to grow to the full natural extent, unpruned, and, therefore, the must being weak might require some kind of preparation to prevent acescency, though at the expense of delicacy. Wine-mixing seems to have been an important employment, not as with the moderns, implying, for example, the mingling of Cape and other white wines to simulate sherry, but with some of the substances just mentioned. This explains what was meant by "mixed wine" among the Jews, whose wine was mixed with aloes and myrrh, or wormwood. Ovid deifies a wine-mingler who had quitted life:

> ——————one of giant line
> Who to the gods does mix immortal wine.

The wine thus mingled was taken in Murrhine cups; a substance about which critics are not agreed. It was said to impart a peculiar flavour to the wine. But the wines were commonly drunk out of small glasses called cyaths, of which as many were taken as there were letters in the name of the party toasted, and they were crowned or filled to an overflow. The cyath was not equal to the modern wine-glass in size. It was just the twelfth of a pint, or 0·469⅔ of a cubic inch. So that a lady's name of six letters would demand only three of the middle-sized wine-glasses of the present day. The most renowned of the ancient wines among the Romans was

the Falernian, which grew upon the volcanic Campania near Naples, where also the Massic was produced. The Falernian was the product of a hill-side. It was rough, of a dark colour, and strong. It was drunk at ten years old, when it was mellowed, softened, and had imbibed somewhat of a bitter taste. The price was high. Calenian, and Formian wine as well, were products of the vine in the time of Augustus Cæsar;* as was the Cæcuban, so named from the city of Cæcubum, where the vineyards were situated on the Palus, or low grounds, near Amycle. Falernian was sometimes mingled with Chian to soften it. These wines were taken after being cooled in snow. They were brought to the table in flasks, not corked, but having a little fine oil poured into the necks to exclude the air. Sea-water boiled was demanded, a small quantity of which was mixed with the wine. Falernian wine was distinguished by wine of Gauranum, of Faustinianum, and of Falernum, from growing on the top, middle, and bottom of the hill. The ancients noted the years of celebrated growths, as that of the Opimian year, or the year of Rome, 632, when Opimius was consul. It was in high esteem a century afterwards. The Romans marked their amphoræ, or wine vessels (containing seven gallons and a pint modern measure), with the consul's name, which indicated the year of the vintage. Many amphoræ now exist with the legible mark of the vintage.

Other famous growths among the Romans were the Setine, the favourite wine of Augustus Cæsar, said to be lighter than the Falernian, and supposed to possess medicinal virtues. It was grown near Setia, in the beautiful Campania, a town overhanging the Pontine Fields. Surrentine was a wine commended by the Emperor Caligula. It was made at Surrentum, and was little inferior to Falernian or Massic. This wine was described as a mild wine, less affecting the head, according to Pliny, than some other kinds. The Alban wine was grown on the hills of that name. Fandine was like the

* Hence Martial:—

Crown the deathless Falernian, my boy!
Draw the quincunx* from out the old cask—
Of the gods who can heighten the joy?
'Tis for Cæsar five bumpers I ask.

* The quincunx is the five letters in the name of Cæsar.

Falernian in quality, and was grown in the Campania Felix. Near Naples, the Trifoline Hill was noted for its growths, and Mount Aulon, opposite Tarentum, now called Castri Vetere. Mamertine wine was made in Sicily, near Messina. Nomentine was a light Roman red wine. Spoletine was light, sweet, and had a yellowish tinge. Signian was astringent, and recommended medicinally. The Ceretan was grown in Etruria, and is supposed to have resembled the Setine. Pollium was a sweet Syracusan wine. That of the Sabine Farm is immortalised by Horace more through its connexion with genius than any intrinsic excellence of its own. The vineyard was situated where two mountains opened, and formed a secluded valley, the sides of which faced the east and west respectively. The stream from the Fount of Bandusia ran through the fields of the farm. Horace mentions having on this farm to offer his guests some five-year old wine of Minturnæ, grown near Sinuessa. The poet had also some Marsian wine, the best of his stock, of the age of the Marsian war, or about the year 65 before Christ. Opimian wine could not be bought in the time of Augustus Cæsar, such was the value set upon it. Thus, all that remained was probably in private cellars. Other wines of Italy, the names of which remain, are the Pucine, grown on the shore of the Adriatic, upon a stony hill-side. This wine was said to have prolonged the life of the Empress Julia Augusta to eighty-two years. The Rhætian wine was grown in the territory of Verona. The Praetutian, Latinensian, Statonian, Palmesian, and Graviscan wines, are mentioned among those of the Romans. Pliny states that the number of wines in esteem in his time was fifty-four Italian and twenty-six foreign species. (See Appendix, No. XXVII.)

That adulterations of wine were practised in Rome in the time of Horace, as they are at present in England, is clear, from the accounts of the entertainments of those times still extant. Greek wines were thus imitated.

The age of the wine of the Sabine Farm is stated by Horace, and that it was used to cheer the ancients much in the same social domestic manner as the temperate among the moderns use it at present, when winter's chill blasts prevail:

Heap up the fire, drive off the cold,
Bring Sabine wine of four years old,
And leave the Gods our cares!*

Some of the Roman wines are mentioned as twenty-four years old, some as sixty-five. Several centuries elapsed before the Romans made their own wine. They imported it before that from Greece. Among the Greek wines, that of Clazomenæ was in considerable repute in Rome. The Paligrian, from the Abruzzi, and the Massican, seem to have been held in small esteem. The wine of Massilia, now Marseilles, was censured for being smoky by Martial. The same writer compares the bouquet of a bottle of Falernian, upon opening it, to the sweet breath of Diadumona. The wine of Tarracon, now Tarragona, in Spain, is said to have approached Falernian in excellence. The wines of the Rhone were not highly valued, except those of Vienne, then called Vienna.

The Romans seem to have been partial to thick wines. They boiled down their must one-third, and then mingled drugs with it, to impart the desired flavour. Pliny says that the drunkards of his day took pumice-stone before they set to at a drinking bout in honour of Bacchus. Some of them swilled amazing draughts; a gallon was a common matter. They used both skins and amphoræ for holding their wine; the former were called *utres*. The amphoræ were made of baked clay, anointed with a proper substance to close up the pores, and prevent leakage. They held from seven or eight gallons up to several barrels. They were fixed in the ground, having a pointed termination. They have similar, but larger, clay vessels at Manzanares to this day. In shape, the amphoræ were conical, with a mouth and handles: a cover of clay was luted on, and waxed, to keep out the air. The date of the vintage was generally marked in red letters. The vessels out of which the wine was drunk were various, and some exceedingly rare, rich, and costly, ornamented with amber, gold, and gems. They had also bottles and cups of glass. Some were made in Egypt, some at Surrentum; and the flasks they used were manufactured in Syria. Not only in libations to the gods, but on all great occasions, they seem

* Dissolve frigus, ligna super foco
Large reponens.—*Hor.*

to have been careful to adopt the most costly material. The Greeks mingled water with their wine at public entertainments, by a law of Amphytrion, revived by Solon, in order that people might return home sober. The Jews were ordered to use pure "unmixed" wine in their sacrifices, and the same point was observed in the sacrifices of Numa, at Rome. This plainly shows that mixing wine with drugs, as in modern times with brandy, was to render it more intoxicating, which would desecrate wine used in libations to the gods. Bumpers, or crowning the glass on drinking a toast, was a practice borrowed by the Romans from the Greeks, and most probably original with that wonderful people.

When the wines were closed up in the amphoræ, they were placed in the fumarium, to mellow by warmth and to thicken, as well as to imbibe a slight smoky flavour. This has some resemblance to the modern custom of our Indian voyage, to mellow Madeira by heat and motion. The amphoræ were then placed in the ground, regularly arranged, and marked. The accounts that have reached us forbid the supposition that the Greeks had any depositories like modern wine-cellars in temperature and dampness, for they placed their wine where there were cloths, costly vessels, and brazen armour, which a damp cellar would have spoiled. The amphoræ being hermetically sealed, and the earthenware impervious to atmospheric influence—the wines, too, being so thick and viscid that they were diluted with water very frequently—it is probable that temperature was less a matter of moment with the ancient than the better modern wines, which are valued for freshness and delicacy. The Romans, on the other hand, had extensive buildings, where large quantities of wine were stored up after the vintage; and there can be little doubt that they had cellars in their houses as well.

The colour of their wines was various. They perfumed them, and thus their fragrance was evidently the product of art, and not the natural bouquet of pure wine. The poets supply many passages that point to the characteristics of the ancient wines, and make continual allusion to them, in passages of great beauty. Homer, Anacreon, and other Greek writers, and Horace, Martial, Persius, Virgil, Plautus, and other poets among the Romans, make allusions which may or may not be literally correct regarding them. These, and the

writers on agricultural subjects or natural history, afford the sole glimpses of all we know upon the subject among the two greatest nations of antiquity.

The wines of the moderns, there is no doubt, are much more perfect than those of the ancients as far as can be discovered by anything carrying the stamp of authenticity, which has reached the present time. It may not be amiss to mention briefly those writers who have treated upon the subject, and treated it generally with that attachment to favoured theories which renders so many men of talent agreeable enthusiasts in behalf of all that is old, however dubious the authority upon which they found their conclusions. What we know of the ancients in the way of fact, we may safely use; what we guess relating to them, if always amusing, it is not always useful to communicate.

The wines drunk by the Romans were mixed or adulterated wines, and were consequently not pure, in the modern sense of the term. Even in the ancient sense, as the reader will see in the account of the best wine given by Mago, quoted hereafter, the dry wines were not considered the most worthy. It was in the flourishing times of Rome, in the Augustan age, that we discover wine to have been deteriorated. Yet this was the age of the Falernian, the taste and colour of which have been so much disputed. Some have fancied it was of the colour of Madeira. One writer thinks it was white, and many commentators declare it was black, while it was very probably neither. The poets frequently use the slight apparent colour which an object may assume for the real hue, hence the "black" of Martial, applied to Falernian, might be intense red, or purple, or violet, but was hardly white. To receive the language and allusions of poetry as direct evidence in such a matter, would be to change the nature of poetry itself, which professes to accommodate most things upon which it touches to a standard of ideal excellence.

The historians of wine have hitherto been of the medical profession. To render it more singular, even the laureate of the vine, Redi, with his "Bacco in Toscana," was a physician, while in treating the subject he affords, by his facetiousness, a striking contrast to the solemnity of style and manner which marks the grave periods of his brethren. Bacci, a patient and learned writer, wrote his history in Latin, and died

at the close of the sixteenth century; his work on wine is, in many respects, valuable, though Haller speaks of it slightingly. In 1775 Sir Edward Barry, having read Bacci, became "wine wise," to borrow a word from Beaumont and Fletcher, and composed his observations on the "Wines of the Ancients." Using all of Barry's treatise which was worth taking, Dr. Henderson compiled his volume on wines. He designed at first only to publish an improved edition of Barry, until he saw that making sense of so strange a jumble was impossible. Barry, in treating of Greek wines, cannot refrain from introducing Bath waters, while his implicit faith in everything mentioned by ancient writers, is carried to a ludicrous extent. He finds that Hippocrates gave his patients Thasian wine in the proportion of twenty-five parts wine to one of water, and he thence infers the potency of the wine, beyond any belonging to these "degenerate days," with the weight of the still in their favour, of which the ancients knew nothing.

A brief account of the contents of Sir Edward Barry's volume will explain them sufficiently. Little information of moment on the wines of the ancients is mixed with much absurdity. Much is gathered from poetical passages that have come down to us, that allude but generally to the subject of wine; and after all, with what information is left upon the subject of agriculture by one or two of the ancients, the information of that which it was most important to know, the quality and flavour of the ancient wines, amounts to little.

Hippocrates first led Dr. Barry to the subject of wines, by his medical rules respecting them; hence he was induced to inquire into their nature and principles. He thinks Hippocrates mistaken, when he speaks of black wines, "which are nowhere produced." Now there are the "black" wines made at Cahors, in France, at this day; their colour is apparently that of ink, arising from their intense violet hue. Nor was Barry aware that Hippocrates, when he speaks of wine and its ancient use in different degrees of strength, might be treating of a remedy for fever, at this moment used in several parts of Greece. This is a much better way of accounting for what seems "obscure," in the rules of the Greek physician, than any light Barry has been able to throw upon the subject. Old thick wine is still a remedy in Cyprus

for tertian and quartan agues, common in that and some other of the Greek islands, where the old wine used to burn like oil. Dr. Henderson does not seem to be aware of this circumstance, when he corrects Barry, by supposing the drink was used merely as a diluent, for even in that character, in most fevers, wine would seem oddly applied, unless the patient were in a state of convalescence; I say this with all due deference to better Esculapian knowledge.

Barry's first chapter treats of the nature and principles of wine, and gives Boerhaave's idea of fermentation, a subject now better understood. Water, fire, terrestrial, saline, and oily parts, with ardent spirit, Barry describes as the component substances of wine. In his second chapter, he enters upon "the wines of the ancients," and introduces Galen and the Italian wines; Dioscorides, Pliny, and Athæneus, too, are quoted. "Inspissated" wines are touched upon; Cato, Varro, Columella, and Bacci are introduced. The doctor then considers the mode adopted by the ancients in making and preserving their wines; and announces the notable discovery, that they were either weak, strong, or intermediate. He laments that modern wine-coopers know nothing of fining with isinglass, eggs, and similar matters, though it has been practised across the Channel, and probably in England, time out of mind. The mixing of salt water with viscid wine is noted, and that Chian wine was adulterated into Falernian by the use of hepatic aloes, a pleasant example of the purity of ancient wines. He next alludes to the wine-measures of the ancients, quoting Dr. Arbuthnot for an authority. The "wine-cellars of the ancients" form another chapter. The custom of burying a vessel of wine on the birth of a child, common at this day in Greece, was, it appears, anciently prevalent at Rome. Barry then treats of Roman wines and the wines of the Campania Felix. The descriptions are drawn largely from the poets. The mixture of twenty parts of water with one of wine, is quoted from the ninth book of the Odyssey of Homer, to show how powerful the wine must have been. Such quotations prove nothing. The poet, when he extolled the strength of the wine, naturally exaggerated, according to the custom of poets at all times. Besides, the Thasian might have been in the case to which allusion is made, a mixed wine, after the sense of the term which the

reader will find in the latter part of this volume. Again, in some wine countries of the South, wine is rarely drunk unmingled with water, especially in Greece, where the resin and pitch at this day flavour it so intensely. The taking such passages as proof at all, is a fallacy throughout his work.

The "entertainments and suppers of the Greeks and Romans" are treated of at length by Barry, mingled with professional remarks. The triclinia, cups, vessels, and vinous preparations of the ancients all come under review, with the medical and dietetic uses of wines. The author precedes them by his chapter on "the nature and qualities of water," which he introduces for the unanswerable reason, that as water is a constituent in wine, it should have similar consideration. He then wanders from the vinous subject to his own locality, giving a disquisition on Bath springs and their virtues—a deviation not uncommon with physicians in fashionable watering-places.

The following extract is a specimen of Sir Edward Barry's style of scientific writing: "I have long been inclined to think that there is a peculiar quality in that kind of water which constitutes the greatest part even of the strongest wines, but prevails almost entirely in the weaker kind, which are animated only with a very small portion of a vinous spirit; and, therefore, from the nature of it, must certainly possess some qualities very different from those of the common water, which is that of the soil where the vine is planted; and which in that state is first received into the small absorbent vessels of its extended fibres; from whence it is collected, and more digested in the bulbous parts of its root, and thence distributed through the trunk, into its various ramifications; where it must have been almost, if not entirely separated, from all the heterogeneous and terene parts which it contained, before it constitutes the aqueous parts of the grape; as it is very evident, from late experiments, that the whole size and weight of the greatest tree is owing to water alone. It is likewise remarkable, that the fibres and vessels of the vine are more dry and rigid than those of any other tree, and that it chiefly delights in a sandy soil. This water, therefore, originally of the best kind, and passing through the finest strainers, must approach nearer to the unmixed, elementary qualities of water, than has yet been found in any place, even when depurated with

the greatest art. This seems confirmed, from the specific gravity of common water being found greater than that of any pure vinous liquor; and though this has been generally imputed to the prevailing lighter qualities of its spirituous parts, yet it seems to be more owing to those of the water."

A part of Sir Edward Barry's volume is devoted to a notice on modern wines. His information upon this part of his subject is very imperfect. He concludes with an account of the "wines used in England," and of the attempts made to plant the vine here; and, among others, relates an experiment made by Mr. Hamilton, his friend, at Painshill, proving that good wine has and can be made in England, and that such wine has been sold at seven and sixpence and ten and sixpence a bottle.

Though it is not the design of the present volume to illustrate modern wines by the imperfect and glimmering views which can be obtained of the ancient, a few remarks on the subject may be casually made. That the wines of the ancients differed from those most in repute in the present day is clear, although it is very probable that in Cyprus and the East there are wines still made closely resembling the ancient, the most prized of which, as well as the purest, were generally of the sweet or luscious kind. The flavour of wines made in Italy from vines suffered for the most part to luxuriate and grow without pruning, would hardly please a modern palate, especially when mingled with sea-water, tainted with resin, and rendered viscid by the smoke of the fumarium. Yet, as the fumarium was used more to mellow the wines by heat than smoke, and time removed much of the taint, the flavour might not be so objectionable as it appears on the first reflection.

The ancient writers on the present subject, of whom we have any knowledge, are Varro, Cato, Pliny, Columella, and Palladius. Hanno, the Carthagenian, wrote on the subject; and Athæneus, Plutarch, and others, make allusions to it. Columella quoted Mago. The oldest account of ancient wines that can be deemed satisfactory, through its leading the reader to understand the quality by any mode of making wine pursued at present, is given in this quotation from Mago. He was a Carthaginian, who composed twenty-eight books on husbandry, and flourished about 550 years before

Christ. Besides these, all the information by which we can gather any knowledge about ancient wines is gathered from Roman writers, or Greeks resident in Rome. Aristotle, indeed, gives some little information respecting those of Arcadia particularly, not very consonant with our notions of what contributes to vinous excellence. The Romans, in describing contemporary manners, give an insight into the use of wine and mode of drinking it, particularly the poets, Juvenal, Virgil, Martial, Horace, and Petronius. But of all the ancient writers Mago alone teaches us, by the mode of making the wine, that the class of sweet wines must have been in quality and flavour very much like those of the South in the present day.

The directions given for making the best sort of wine, or *passum optimum*, except the use of pitched vessels, were, in the age of Cyrus of Persia and Mago of Carthage, clearly these :—"Let the bunches of grapes, quite ripe, and scorched or shrivelled in the sun, when the bad and faulty ones are picked out, be spread upon a frame resting on stakes or forks, and covered with a layer of reeds. Place them in the sun, but protect them from the dew at night. When they are dry (sufficiently shrivelled), pluck the grapes from the stalks, throw them into a cask, and make the first must. If they have well drained, put them, at the end of six days, into a vessel, and press them for the first wine. A second time let them be pounded (or trodden) and pressed, adding cold must to the pressing. This second wine is to be placed in a pitched vessel, lest it become sour. After it has remained twenty or thirty days, and fermented, rack into another vessel, and, stopping it close immediately, cover it with a skin." Now, this also was done by Columella, who lived fifty years after Christ, and between five and six hundred after Mago. He prefixes the remark, that "Mago gives directions for making the best sort of wine as I myself have done." Thus the best wine is not a dry wine, nor the best luscious wine only, but the best wine as the luscious wines are esteemed before the dry in the South at this day. Now the best wine in Carthage, A.C. 550, and at Rome, A.D. 50, must have continued pretty much the same in kind and quality during that interval, notwithstanding the reign of Augustus and the poetry of Horace, or such mixtures as the fluctuations of fashion

dictated. The reader will be at no loss in this volume to find wine made the same way as by Mago in more than one place in the south of Europe, during the present century. It may therefore be presumed, that the best wine, in the esteem of the ancients, resembled the *lagrimas* of Malaga, or some of the straw wines of France. As to what poets say in favour of any wine, it goes for nothing in regard to its quality: Shakspeare may extol sherry for the most exquisite, Redi Montepuleiano, Prior claret, Boileau Burgundy, Crabbe vulgar port, and Moore sparkling champagne; but this would decide nothing a thousand years hence about the nature or flavour of the wine, and each kind cannot be the best. Dr. Henderson, with his chemical knowledge, and laborious investigation of classical authorities, saw the concentration of all excellence in the ancients; but the knowledge of the essential properties of the ancient wines is a sealed book to us for ever.

The modern traveller in Greece cannot drink a small quantity of the wine there without water, for the intense headache it excites, owing to the infusion of resin, pitch, and similar ingredients; substances of the same nature as were infused in the Augustan age, in the dry as well as other wines. But it does not appear to be prevalent in the small islands in the same degree, and not at all in Cyprus. These, it is evident, are properly "mixed wines," in the sense before mentioned among the Jews under that title. It is not wonderful that Augustus could only drink his pint at a sitting, even when mingled with honey! What should we now think of wine that had been matured by being exposed four years to the sun! A modern wine-drinker could hardly manage half as much of such a mixture, without sickness, any more than the emperor. These wines, from all that can be now gleaned respecting them, were little entitled to the praise of purity. There seems to have been in all ages a tendency to render the juice of the grape stimulant and injurious to the constitution. The Persians infuse poppies in their wines at the present day, and the English generally give the preference to those which are unnaturally mixed with the largest quantity of the product of the still. Henderson seems so much aware of this in praising ancient wines, while agreeing that no wine deserves to be drunk

which is not the unadulterated juice of the grape, that he palliates the practice, by observing in substance, that a taste in wine varies, and is at best an acquired taste. This is hardly correct; a taste for pure wine is natural. A child will drink pure wine, but not wine and pitch—the union of the two would yield a flavour only to be relished by a gradual introduction to their usage. The difference of flavour in pure wine is not against this argument. If it were the fashion to mix saltpetre with coffee, though its becoming the fashion would immediately make the nauseous mixture habitual in what is called "fashionable life," the coffee would not, *de facto*, be less adulterated, or the fashionable taste be less an acquired and depraved one on that account.

Every rational person must admit, that to judge the modern by the ancient wines, without knowing more of them, is only not the greatest of absurdities. Dissertations, however inconclusive, may amuse individuals of fortune not unprofitably who have leisure to bestow upon speculations of a similar nature. The being carried through the pages of Cato, Varro, and Columella, as it were, into the midst of the pursuits of the ancients, is pleasant and agreeable; while it is true, the agricultural operations they describe we can understand. Of the flavour of the ancient wines, their colour, and spirituous strength, on the other hand, we can know nothing in our sense of those terms. Their merits are a secret as to the qualities we hold in esteem. An ancient, as a modern poet would do, might style the same wines soft, sweet, or luscious, in his verses, as fancy dictated; so in colour they might be intensely red, approaching black, or purple, or violet. Barry might be of opinion that the wine given by Ulysses to Polyphemus was Thasian, because it made the Cyclops drunk so soon, and required twenty-four parts of water to make it palatable to any one but a giant; while some other writer, who eschewed luscious wines, might think it was of the dry class, because the disorder in his own stomach, produced by sweet wines, was somewhat slower in effect than when produced by the dry, and the stomach of Polyphemus seems to have been rapidly and most effectively agitated.

Barry has a statement respecting the enormous produce of ancient vineyard land, to which allusion has already been made. It is remarkable on several accounts, as well as for

exhibiting how much the ancient writers differ in the simplest points, and how hard it is in consequence for the moderns to obtain the truth in things apparently simple. An English acre is forty-three thousand five hundred and sixty square feet. Varro says that a jugerum (twenty-eight thousand eight hundred square feet, or two roods eighteen poles as some state) had been known to produce ten, nay, fifteen culei of wine. From ten to fifteen is a great step. He then adds, that Marcus Cato says a certain piece of land gave ten culei repeatedly. Varro then states further, that the same quantity of land, near Faventia, usually gave three hundred amphoræ of must, and was thence called "Tricenary," a term bestowed on vines (*vitis tricenarii*) that produced thirty measures of wine. Columella, evidently thinking this incredible, remarks that such was unquestionably the case in *former* times; but now, he continues, at the residence of Seneca, not fifteen, nor ten; no, but eight culei were no uncommon produce for each jugerum. He then observes on the astonishing exuberance of Spanish vines, where seven culei had been obtained from eighty stocks of two years' growth, and a single vine had produced two thousand bunches of grapes. In respect to Spanish vine-produce, it must be still very great, as the reader will see if he turns to the chapter on Spain in this volume, and observes what an abundance of grapes is gathered annually near Malaga; but then there are three gatherings in the year, which neither Columella nor Varro state regarding the Italian vines. Now Varro is extolling Italy, and evidently placing it in rivalry with Greece, and his statement, after all, is but ten culei; and in the time of Columella only eight could be cited as a fact. In determining similar questions, it should be always asked whether it is most likely that a writer should exaggerate or be mistaken, or that nature should change. Common sense supplies the answer. In such cases it is ever the best course to abide by universal experience. A district may change in fertility, and sometimes the change is recorded as being caused by some public calamity; but generally man will rather be found to have neglected culture, than nature to have forsaken the soil of an entire country. It is probable that Italy and Spain are as capable of producing the fruits of the earth as they ever were. It may be questioned if the

latter country does not now produce as fully for the purposes of commerce, when it is diligently cultivated, as it did anciently. There can be no question that the Axarquia is as rich as it was in Columella's day. Vines are now pruned, and even the buds taken off, to improve the quality of the wine, disregarding the quantity. A vine is not now suffered to run wild, and produce an exuberant quantity of fruit, and in consequence a weak must, which requires pitch, resin, and other ingredients, to prevent it from turning acid, as must from wild grapes soon does; and as it soon will, however carefully managed, if cultivated vines are allowed to run at large, and give out fruit at random to their full bearing. Modern science has taught a lesson to its children in the better manufacture of wine, if it cannot be partaken at the enviable symphosia of Plato or Xenophon, the myrtle-wreathed suppers of Horace, or around the carved bowl of the immortal Mæonides.

Barry says, a British acre, at fifteen culei the jugerum, would produce forty-five hogsheads. Henderson says, fifty-four hogsheads and a half, no trifling difference; both cannot be correct. The latter remarks, that Columella deemed the estimate of Varro exaggerated. Columella's experience, it is to be observed, relates to one of the most fertile spots on earth. Neither Barry nor Henderson, it is presumed, were acquainted with the returns of certain vineyards in France. The earth has not, as respects quantity, materially changed in what it gives out in culture. The Hampton Court vine has produced in one year two thousand two hundred bunches of grapes of a pound weight each, or two hundred more than the quantity quoted by Columella, who does not say what the grapes weighed. One branch of this vine is one hundred and fourteen feet long. At North Allerton, in 1585, there was a vine that covered one hundred and thirty-seven square yards, and was then a hundred years old. A vine at Valentines, in Essex, produced two thousand bunches of a pound each, and covered one hundred and forty-seven square yards. At Chevening, in Sussex, a muscatel vine, reared from a cutting thirty-four years old, in 1836, extended over a space one hundred and fifty-eight feet in length, and bore that year two thousand and forty bunches of grapes, while a vine of the same species near it was of no more than the ordinary size. The average of a

province is no scale for a particular vineyard, nor does the must of the grape increase as the South is approached. At least, this is by no means the rule. The entire department of the Seine and Oise, a part of France, some portion of which is north of Paris, averages 1373·480 gallons per hectare, or every two and a half English acres. But the wine is watery, and will not keep long; the pitch or resin of the ancients might perhaps give it endurance. It appears, uniformly, that where the quantity of must given is very great, it is generally weak. In the Meurthe, where the average product is but 50·64⅝ hectolitres, from a hundred and fifty to two hundred hectolitres per hectare are frequently the produce in certain spots, yielding the almost incredible quantity of two thousand one hundred and twelve, or 2112·0282 gallons each acre, according to the well-established statement of M. Thomassin, curé of Achain. Now eight culei are about one thousand seven hundred and forty-five gallons, and ten about two thousand two hundred and eighty-four per acre. The wines thus produced are the commonest and most ordinary in character, yet still they are from vines not allowed to run at random, nor give the utmost quantity of fruit. Therefore, that vines in a certain spot in Italy should produce eight culei, especially where the amount of produce was the sole object desired, though the quantity is large, does not seem, all things considered, so very wonderful.

Wine appears to have been anciently cheap, for we are told that, at the vintage, one hundred and forty-three gallons were sold for two pounds eight and eightpence. This was common wine. Sir Edward Barry thinks that good wine was about eight pounds sterling per tun of two pipes. In the consulate of Opimius, A.U.C. 633, a remarkably fine vintage, the choice wine sold for seven pounds one and tenpence the hogshead. Afterwards an amphora of the best Chian sold for eight pounds eleven and fivepence, being about fifty-seven pints. A.D. 303, "Conditum," a mixed wine, in temp. Diocletian, was fixed at twenty-four denarii the sextarius, or about an English pint; Absinthum twenty denarii; Rosatum, or with roses infused in the wine, twenty denarii. The only difficulty here is to settle the value of the denarius, which was much depreciated at that time.

Both the authors above mentioned have dwelt on the

medical effects of wine and its dietetic qualities. These are so well known, that they need not be repeated here. It would never be thought, that before A.D. 1581 the English were noted for their sobriety. There is one distinction should be made, respecting the abuse of wine, in the character of a modern people; this is the separation of inebriety by wine from that produced by agents not the product of vinous fermentation. There are few individuals comparatively, among the intemperate, who can lay the fault upon wine, in this country, if the pure juice of the grape be understood by that term. It is the produce of the still, mingled with wine, that operates the mischief, when wine is concerned at all.

The northern nations have always drunk hard, and those who least approach the habits of the more civilised, have been most remarkable for this vice, while in the more civilised countries the lowest orders of the people have been most habituated to it. In wine countries, people mix water with their wines, and when they drink them pure, take them in moderation. Their wines have no more than the natural alcohol, and wisely used, prove a blessing, as they did to old Cornaro the Venetian. In no country are the effects of ebriety more fatally visible than in our own. There can be no doubt, that in a northern climate, a moderate quantity of pure wine acts beneficially on the constitution, except in certain habits of body, where the most trifling stimulants are injurious. In all ages of the world, in sacred and profane history, the abuse, not the use of wine, has been condemned. It is painful to reflect how much this abuse has converted what is naturally so generous into an evil of no ordinary magnitude; so difficult is it to mark the limit of rational enjoyment, even in the best things. The practice of drinking largely of wine has much decreased of late years, and though "Attic taste with wine" may be a union as rare as before in any class of society, it is certain that wine was never less abused by consumers than in the present day, nor excess more generally avoided.

It would be trespassing on the ground of those who have so well described the effect of wine on the human frame, to say more on the subject here; especially as it is generally well understood. It is safest to drink the French wines, and to take all wines pure. French wines are rated first in wholesomeness. Next come the wines of the Rhine. After these,

sherry, port, and Madeira, when sound and free from the destructive influence of unblended alcohol.

The vine was once cultivated in England, and this might be done now, were it not that other productions of the soil are more lucrative. There is no doubt but a wine, equal to that of the Moselle, might easily be made, and that every two or three years a vintage sufficient to remunerate the grower might in certain places be perfected; but the uncertainty of the climate, and the cheapness and superior excellence of foreign wines, would hardly allow a British wine, of little vinosity, the chance of competition. Dr. Barry says, some of Mr. Hamilton's wine was thought superior to the best champagne. The grapes used were the Burgundy, cultivated in the French fashion.

The wines used in England in former times have been traced in other works upon the subject. It would be foreign to the nature of this volume, and occupy too much room, to speak of them here; besides, they comprised the Italian, Spanish, and even the Greek wines, as well as the French. These last came early into England. Langland in "Piers Plowman" writes, about the time of Edward II. or III.:

> Whit wȳn of Oseye and of Gascoȳne,
> Of the Ruele and of the Rochel wȳn.

Osey wine, or oseye, is a species not at present ascertained. It has been supposed French from Auxois or Alsace, of which it was the old appellation, pronounced much in the same manner. Rochelle wines were French of course. Ruele is near Angouleme. Gascony and Guienne wines, in the reign of Henry VIII., were sold at eightpence the gallon, and malmsey, romancy, sack, and sweet wines at twelvepence, and at three-halfpence the pint, under a penalty. Rhenish sold, temp. Edward IV., by the fat of three almes at thirty shillings the alme. At this time only a limited number of places were allowed more than two taverns; London was limited to forty. The usual feudal influence was carefully kept up where the gratification of the sense was concerned. None but those who could spend a hundred marks a year, or the son of a duke, marquis, earl, viscount, or baron were allowed to keep in the house more than ten gallons of wine, under a penalty of ten pounds. No taverns were allowed to retail wine to be drunk in the house. Merchants might use the wines they

imported for themselves, but not sell them. Only high-sheriffs, magistrates of cities and towns, and the inhabitants of fortified towns might keep vessels of wine for their own use. So much for the commonalty; yet in this very reign, the Archbishop of York consumed a hundred tuns on his enthronement. Four pipes a month were consumed in some of our noblemen's households of that day. "Malvasia, romenay, osey, bastard muscadelles, and other sweet wines," were drunk in England, in 1469, according to a document relating to the royal family. There were two Greek towns, called Napoli di Malvasia, and Napoli di Romania, from whence the wine called Malvasia, or Romaney, the modern Malmsey, was originally exported, before the Turks occupied the mainland of Greece. After that event, Candia was the place whence this wine came, even when the island fell into the hands of the barbarians. Pietro Quirino, whose shipwreck is so singular a record of the times, had eight hundred casks of Malvasia on board from Candia, when he was lost in the North Sea, in the year 1431. The "wine of Tyre," the Helbon wine of Ezekiel, made near Damascus, was imported here in the reign of Richard III. by Venetian vessels, which were bound to bring with each cask ten yews for bows: yew abounding in the Levant. Nearly down to the revolution of 1688, French wines were imported in the largest quantities, even to the extent of twenty thousand tuns a year. Heavy duties upon these, and the Methuen or woollen treaty, drove out the wines of France, and introduced Portuguese and Spanish.

I may be charged by some, particularly those who from habit are advocates for spirituous wines, with too great a predilection for the wines of France. I do not think I have in any case exceeded the limits of fair comparison. Wine, let it be of what quality it may, whether abounding in alcohol, or weak in spirit, if it be the pure juice of the grape alone, after due fermentation, is that to which I confine my meaning when I use the term "pure wine."

The French wines are among the best and purest; the German and Hungarian wines, besides their truly vinous qualities, are among the most delicate and perfect in character. The love of brandied wine, and spirits of all kinds, is too much gaining ground in this country. Whether foreign spirit be taken mixed with water or wine, the effects are the

same on the wealthy user of them, as the spirits of the British still are upon the poorer classes, and the injurious consummation will in both cases be very little protracted.

France has supplied the want of information respecting her unequalled vinous productions by suitable details of acknowledged merit and accuracy. These are given in the text and appendix, nominally and according to the departments in which they are grown, when worthy of notice. As soon as other nations shall follow her example, something like an accurate account of the vine and its products may be written, which will contain every particular of this branch of agricultural science useful for all nations. There is reason to think that the dissimilarity between the mode adopted both in vine culture and in the vintage in various countries, is already ascertained pretty near the truth, and that the differences are not greater anywhere than will be found described in the following pages. It would be well if the same approximation to truth of description could be attained with respect to the quality, properties, and flavour of the products of the vintage, a thing, however desirable, it is to be feared impossible to be put in the execution. France yields the standard by which all wines may be classed in their relation with her numerous varieties. From her weak northern products near the Moselle, to her rich, luscious, powerful wines of the south, among which, it is probable, there is no variety in the world which might not find an approximation to some one of her growths, a classification might be adopted. The roughness of port, the lusciousness of Cyprus or Syracuse, the dryness of amontillado, the endurance and flavour of hock, and the sweetness of lagrima, may be all found among her wines, respecting many of which, in England, little is known. In an attempt made, upon French authority, to classify its wines generally under their respective heads in the Appendix, it would have occupied too much room to carry them down to the sixth class, as it is not probable that any beyond the third will be imported into Great Britain, and the varieties are exceedingly numerous. This classification will serve as a general guide in all cases, and may be rendered more perfect, as the intercourse between the two countries, and a more liberal commercial exchange shall familiarise the public with those rich productions of the soil.

My endeavour has been to render myself as intelligible as

possible, and to refrain from useless detail. A volume might be filled with the accounts of the vine itself, its varieties, and different modes of cultivation. This part of the subject has been compressed. While the best growths of the various wine countries are given in such a manner that the gentleman on his travels for pleasure, or the merchant during a commercial journey, may know the spots most eligible to visit, either from curiosity or business. The prices of the wines in France particularly have been annexed, drawn up from the mean of several years. It is obvious that the prices of one year, in a work like the present, would be useless; the mean has, therefore, been fixed from returns made in the department, and will still be found perhaps an approximation only to the vintage prices for any series of years. In France, of late, every statement relative to existing agriculture has been rendered nearly accurate by the advanced situation of the government surveys. In other countries nothing like the same accuracy of detail; in fact, statements of a very general nature, collected from a variety of sources, and it is to be feared not usually very authentic, are all which can be obtained. I have avoided, as much as practicable, the use of foreign terms without explanation, because a volume of the present kind cannot be rendered too intelligible to the greatest number of readers.

I cannot look back without pleasure to seasons spent in the lands of the vine, not in the towns, but in the heart of the country, amid the cheerful rural aspect and scenes which of all others, at parting, leave the deepest regret in the heart. In 1816 the grapes, in many places in the middle vine districts of Europe, remained ungathered from the badness of the season. After shooting in vineyards, where even in November the fruit hung neglected in many places, I witnessed the disappointment of the laborious vine cultivator, and the sufferings of the agrarian population, of which, except in vine countries, little idea can be formed. The vintage has been a jubilee from time immemorial. When, as is rarely the case, there is no joyous celebration of the vintage, the toil of the labourer is unrewarded, the bosoms usually cheerful are oppressed, and the gripe of poverty clutches its wearied victims with redoubled violence.

In the present volume I have no intention of trespassing

upon the ground of other writers. From some, indeed, little was to be learned. I have endeavoured to avoid that abstruseness, and mixture of ancient learning and scientific terms, which renders Henderson's work fit only for the scholar.

The writers whom I have consulted are numerous. To Bacci, "De Natura Vinorum," Crescenzio, Serres, Roxas Clemente, Herrara, Salmon, Dru, Dussieux, Cavoleau, Choiset sur l'Appareil de Gervais, Barry, Chaptal, Jullien, Lebat, Redi, Mariti, Labaud, Berneaud, the Cours Economique, Tavernier, Columella, Ulloa, Bright, Du Halde, Inglis, Harris's Travels, Gay Lussac, Bowditch, Maculloch, and others, I am deeply indebted. Those who are curious upon the subject of wine may read the "Conversationes Malaguenas;" "Dell' Arte di faro il Viuo," by Fabbroni; "L'art de faire le Vin, Paris, 1819." The statements in the "Memorias eeonomicas de Academia Real," &c., in the Portuguese, are to the point. The following works also treat upon the subject:—"Weinleher, Mainz, 1817;" "Ueber Tokay's Weinbau, Vienna, 1796;" "Rheinslandische Weinbau ver J. Horter, Coblentz;" "Notitia Historica," &e., "Zempleniensis. Autore, A. Szirmay de Szirma, Cassoviæ, 1798;" "Tableau de l'Agrieulture Tuscane, Geneva, 1801;" "De Protopo, apud Rendella de Vinea Vidimia, et Vineo, Venice, 1629;" "Euroyo sobre las Variedades, de la Vid comun que Vegetau en Andalusia, Madrid, 1807;" "Kempfer amænetales Exotica;" "Maebride on the ehoiee of Wines, 1793;" and "Nonnius de res Ciberia," &c.; the "Enologia" of Count Dandolo, published at Milan; Demersou's "Histoire Natural de la Vigne et du Vin, Paris, 1825;" "Proust on the Contents of the Grape." There are also numerous works indirectly touching upon the subject.

These remarks will, it is hoped, guide the reader in the search for good wine, and tend to confirm a preference for that which is really excellent.

[Different Modes of Training the Vine.]

CHAPTER II.

OF THE VINE.

ORIGIN AND VARIETIES OF THE VINE—THE GRAPE—WINE DISTRICT OF EUROPE—SITES MOST CONGENIAL TO VINE CULTURE—ANTIQUITY OF CULTURE—METHODS OF TRAINING—PROPAGATION—REGENERATION—VARIOUS MODES OF TREATMENT—ANNULAR INCISION—DURATION OF BEARING—FAVOURITE SPECIES, AND WHENCE DERIVED—TEARS OF THE VINE.

The varieties of the vine are very numerous. Those which flourish in the hot-houses of England give no idea of the different species known in the countries most noted for its cultivation. A thousand distinctions have been reckoned in the vines of France, though the traces of difference must be very obscure, even to the eyes of the experienced cultivator or naturalist. The garden of the Luxembourg in Paris has five hundred and seventy species. In Spain a hundred and twenty kinds have been enumerated in Andalusia alone. M. Dumont, who has attempted to classify the vines of the Jura, confirms the

fact of the obscurity of their differences. He remarks, too, that the task of classifying them generally throughout France yet remains to be executed. The most favoured species of the vine at present, according to French treatises on the subject, obtain their denomination from the varieties in their produce, being the original plant altered in some cases but very slightly, by differences in the soil and mode of cultivation.

It would be a waste of time to enumerate the various conjectures which are upon record respecting the original country of the vine. If it came from the East, of which there is little reason to doubt, the name of him who first cultivated it from the wild plant, is lost in oblivion, unless the mention of Noah in Holy Writ may be supposed to fix the name of the discoverer prior to the Dionysus of the Greeks or the Bala Rama of the Hindoos. Alexander the Great found the wild vine on the banks of the Hydaspes. The mountains of Ferdistan, in Persia, probably supplied the vines which were first cultivated by man; the wine of Shiraz is made of vines grown on those hills. The wild creeping vine with its harsh fruit is general in the East. In America no less than seventy kinds of wild vine are known, though not more than one-half bear fruit. From Egypt, Palestine, or Asia Minor, into the Greek Islands, the transition of the vine was natural, as well as from the islands to the mainland of Greece, and thence along the shores of the Mediterranean to the Straits of Hercules. Vines were cultivated in France before the time of the Cæsars: first, it is believed, at Marseilles. They were found both there and in Narbonne when Julius Cæsar conquered Gaul. It would be curious to trace, were it possible, the transmissions of the vine from country to country, as the Malvasia grape is said to have been transmitted to Madeira, and the Hock to the Cape of Good Hope. Sometimes chance, but oftener design, effected these changes which wrought novelties in the product. Thus a few slips of vines from Candrieu, of the Scyras grape, transferred to the granite declivities of Tain, gave, as the result, the generous white and red Hermitage. In the thirteenth century the absurd and fanatical expeditions to Asia to combat the Mohammedans, made no return for their disasters better than the introduction of the vines of Cyprus and Palestine into

France, and their produce of the wines of Frontignac, Lunel, Rivesaltes, and others, before unknown. They were planted at the foot of the Pyrenees. The vine was introduced into Germany later; the first vineyards being on the Rhine in a cleared portion of the Black Forest.

A minute description of the vine in the language of the botanist would be out of place here. The general characteristics of the plant are familiar to every reader. The fruit, too, it is well known, differs in flavour and size; sometimes it is globular or oval in form; sometimes large and sweet in taste, while there are varieties almost as small as a pea, of a harsh, crabbed, disagreeable flavour. The grape also differs very much in colour, from a rich violet to a jet-black, or a white, green, or golden hue. The bloom upon the grape, which so delicately tints the skin, is considered in proportion to its prevalence a proof of attention or negligence in the culture. The colour is wholly in the skin; the pulp of every kind of grape, save one variety, having the same internal hue. When the vine blossoms it exhales a perceptible odour, of which the people of the East are very fond. This odour is thought, by the inhabitants of many countries in which the vine is cultivated, to induce fecundity in the human species. The general qualities of the plant are the same in all countries; they only vary in degree as the action of the sun in a genial climate matures more or less those virtues upon which the excellence of the juice depends. It need scarcely be remarked, that upon their degree of perfection depends the goodness of the wine.

The vine is a hardy plant, and will grow so far north that it can do no more than blossom. In some parts of England, in propitious seasons, the grape will ripen very well; but the uncertainty of the climate prevents any attempt at cultivating the vine with a view to profit. There is abundant evidence that vineyards did once exist in England, and that wine was made here; but now that land is so valuable, a crop that would not repay the grower more than one year in seven, would not be worth attention.

The limits within which the vine may be successfully grown, so as to make a proper return, do not depend upon a ripening of the fruit now and then for the table. These limits are capricious, and connected with causes, if not wholly

unknown, at least very unsatisfactorily explained. Half a degree north of Coblentz is nearly the exact limit in that direction. South of that wine is made that will repay the grower from fruit reared in the open air. Moselle is made as far north as Coblentz, and though a wine of secondary quality, it is by no means of so common and poor a class as some which is grown several degrees further south. From Coblentz, in latitude 51° north, an oblique line of definition for the wine country in the west of Europe might be extended to Mouzon, in the department of Ardennes in France, in 49½° north latitude. Let such a line then be continued concave towards the north, through a portion of the department of the Seine and Oise to the town of Beauvais. From Beauvais to Pontoise, across the Seine to Evreux, and from the latter town through part of the departments of the Sarthe and Mayenne to the mouth of the Vilaine, excluding entirely the departments of the Nord, Pas des Calais, Somme, Seine Inférieure, Calvados, Manche, Côtes du Nord, and Finisterre. In this large extent of territory, except an isolated spot or two of no moment, in which a little miserable sour wine may be made in a favourable season, as an exception to the rule, there is no vine country. Yet some of the most celebrated wines in the world, both French and German, are made two or three degrees north of the mouth of the Vilaine, which is in latitude nearly 47° 25′. Hock and champagne are made a good way to the north of that latitude, while in Hungary the rich, sweet, and far-famed Tokay is made in latitude 48°. The vicinity of the ocean cannot affect this singular boundary. The coast from the Loire to the Pyrenees is an excellent wine country. The cold, biting spring north-east winds, which retard summer so much in England, even after passing the sea upon the eastern coasts of the island, blow over the flat, chill, marshy lands stretching on the south of the Baltic far inland, and may probably be the cause. These winds having their origin in the north-east of Russia, sweep over plains of snow before they reach the Baltic coast. It is found that their verge south-west is about the commencement of the vine country, lying obliquely between Amiens and Paris. In the former city, in the spring months, the arid, biting wind will prevent sitting in the open air sometimes even at noon at the close of the

month of May. Proceeding to Paris the reverse will be the case, and the temperature will be found full warm enough even at night. Returning to Amiens again, the former cold temperature will be sustained. The author has more than once experienced this in the space of a few days, and made remarks upon it. There is a range of hills to the north of Beauvais which may turn this wind in some degree, but it still follows the coast obliquely. The greater prevalence of these winds of late years is acknowledged, and they produce a chill which the vine is too delicate to withstand. The north-west wind, sweeping along a vast extent of ocean, and across the British Isles, is always comparatively soft, and from that cause the country in question cannot be rendered unpropitious to the plant. The soil is rather favourable than otherwise to the cultivation of the vine in these districts. There are chalk and other favourite strata, but much of the territory is of a very trifling altitude above the oceanic level in any part, and is more humid from this circumstance.

Doomsday Book proves that wine was made in Essex, six acres producing a hundred and sixty gallons. There has been a change of some kind in that climate, as in different parts of Europe. Rabelais, who was born in 1483, makes an allusion in his works to wine of Britain—not Bretagne, but England. William of Malmesbury, in his book, "De Pontificibus," says that the Vale of Gloucester used to produce, in the twelfth century, as good wine as many of the provinces of France. Near Tewkesbury is a field still called the "Vineyard." A messuage and land in Twyning were held of the lord of Tewkesbury on certain conditions, one of which was the "finding a man for sixteen days in digging in the vineyard, and gathering the grapes for three days." *Inq. ad.* q. d. 39 Ed. III.—Fosbr. Glouc., ii. 293. It is well known that in the counties of Worcester, Hereford, Somerset, Cambridge, and Essex, there are lands which bear the name of vineyards, many of them having been attached to particular church establishments, whose ruins are yet in their vicinity. Raleigh, in Essex, was valued, in the time of King Edward, at ten pounds, *propter vinum*. In regard to the Vale of Gloucester, William of Malmesbury says, "There is no province in England which has so many and good vineyards, neither on account of their fertility nor the sweetness of the grape." The

tithes of the vines of Lincombe, near Bath, were confirmed to the abbey there in 1150, by Archbishop Theobald. The village of Winnal, or Wynall, near Winchester, was so named from a vineyard, and not from any saint, as some pretend. Besides the counties above mentioned, Hertford, Middlesex, Norfolk, Suffolk, Kent, Hants, Dorset, and Wilts, had vine cultivation, as appears from Doomsday Book; but no county north of Cambridge is said to have borne vines. Hence it may be concluded that the vine did not yield any profit if it grew northward of that place. The etymology of Winnal is said to be the Welsh "gwinllan," a vineyard. Vines are distinguished in old writings as "portantes" or "non portantes." The terms, "Vinea nova," "Vinæ noviter," and "Nuperrimi plantata," occur about the date of the Norman conquest. Six "arpens" of land were then said, if the vines turned out well—*si benè procedit*—to produce, by one author, a hundred and sixty gallons—by another, a hundred and twenty. In seeming opposition to this, it is recorded, in "Mémoires pour la Vie de Petrarch," p. 337, tome i., in an extract from one of Petrarch's own letters to a friend, A.D. 1337, that "in England they drink nothing but beer and cyder. The drink of Flanders is hydromel; and as wine cannot be sent to those countries but at great expense, few persons can afford to drink it." Petrarch, however, must have spoken from hearsay alone. More recently, M. Arago, of the French Institute, has commented on the changes in the climate of France. He says, that at Mâcon, in the department of the Saone and Loire—ancient Burgundy—wine, in 1553, was made of the Muscat grape, which it is not now possible to ripen there. The vineyards of Etampes and Beauvais were at one time celebrated. Their wines, if now made, are unworthy of notice. According to a report compiled in 1830, no wine can be made in the whole department of the Somme. M. Arago instances a similar change of climate in England, proved by old chronicles. At one time vines were cultivated in the open fields throughout a large extent of the country, while now it requires the utmost care and attention to bring grapes to maturity in the open air. M. Arago, inquiring into the causes of this change, thinks that a very marked alteration of climate has taken place both in France and England. "The cause," he says, "is certainly not connected

with the sun—a proof of which is given in the steadiness of the temperature of Palestine."

The southern boundary of the wine country is in Asia, at Shiraz, in latitude 33°. The vine is grown in more southern latitudes, but no good wine is made south of that Persian city. Between Coblentz, or 51° north latitude, and Cyprus, 34° 30′, is comprised the vine district of Europe, an extent of sixteen degrees of surface, within which are found the choicest wines known. The principal countries are France, Spain, Germany, Portugal, Italy, Sicily, Greece, Hungary, Styria, Carinthia, and Transylvania. There is also some wine made in Russia, the larger part in the Crimea. In 1831, no less than six hundred thousand vedros, or nine millions six hundred thousand bottles of a red wine called Kokour, were made in that province. In North America the vine is cultivated with some success. Near Washington there is grown a species of vine named Cataroba, unknown in Europe, and at Boston there is a good grape, called by some Isabelle. The Hock grape was introduced into Canada many years ago by German settlers, and also into the province of Ohio, in the United States.

In the southern hemisphere, at the Cape of Good Hope, in Australia, and in South America, the vine is successfully cultivated.

A soil too elevated in a northern country fails to mature the grape sufficiently for wine, as might be expected, from its being some degrees colder than the plain, and rendering the grape too harsh. A warm sun alone develops the saccharine principle in abundance, and prevents austerity in the vine. Thus in latitude 48° or 49° a slope of small elevation best suits the vine. Proceeding southward, though the slope may increase in height and steepness, it will be found equally eligible for ripening the grape. Owing to the increase of temperature in the south, the vines grown at a considerable elevation will be found to produce wine of a quality equal to that made from wines grown on a plain farther north, while the southern plain grows a vine of much more body, strength, and generosity than the plain to the north, supposing the soil of both to be in every respect similar in quality.

With the difference of temperature northwards, the vine cultivated for making wine in open vineyards decreases in

size. At the northern boundary of the vine country it is a stunted shrub, in the warm south it spreads from tree to tree, with a luxuriance of vegetation proportioned to the more genial influence of the climate. The vines of Tuscany, or of Grenada, and those of Coblentz, present a curious contrast both in appearance and fruit. On the one, Nature bestows a prodigality of beneficent nurture, on the other she seems to abandon her stunted offspring to man.

The French, who understand the culture of the vine better than any other people, say, that the art of adapting each particular species of vine to the soil most congenial to its culture is yet in its infancy. Yet this, and the choice of the vine-shoots, embraces all upon which success in the quality of the wine depends. This, in the first wine country in the world, would be deemed inexcusable, were it not very well known that the interference of the government, and the discouraging system of extortion which it lately exercised, left the cultivator no means of trying experiments. Wine of ordinary character generally pays the grower much better than the superior growths. This is a truth in relation to most countries where much commerce in wine prevails. Hence the proprietor has no motive to improve his wines, or to search out knowledge by tedious or expensive processes. Until 1789 he was not allowed to increase the extent of his vine land, because it was supposed to diminish the growth of food for the labourer. It is the same in the East at this moment; the ignorance and rapacity of the ruler stinting the industry of the cultivator. The vine-grower of Cyprus hides from his neighbour the amount of his vintage, and always buries part of his produce for concealment; the exactions of the government are so great, that his profit upon what he allows to be seen is too little to remunerate him for his loss of time and labour. When the taxes upon the industry and capital of a people are no more than are needful for good government, the aspect of nations will be wonderfully changed for the better.

Whether plains or hills are the best situations for the vine has been much debated. The majority of rich wines are certainly produced on the slopes of hills, whether abruptly or gently inclined. "Bacchus loves the hills," said Virgil, seventeen hundred years ago. Though wines of the Gironde in France, so much esteemed, are produced on the plain, the suf-

frages in that country are decidedly in favour of the hills, which must be understood with the qualification that they are not hills of great elevation, or, in such cases, that the allusion is made only to the lower portion of them. Argillaceous hills are not those in which the vine most delights. Calcareous hills are the best for plants producing dry wines, especially when their summits are well wooded, the southern sides being open to the sun. It might be supposed from this circumstance, that in the climates farthest north, where the vine is cultivated with success, the southern aspect would be indispensable. This, however, is not the case. The vine is productive on both banks of the Rhine and Moselle. In some parts of France a western exposure is found to answer best. There are instances were even a gentle slope to the north has done well, as at Châtellerault; also in the department of the Indre and Loire, as well as on the banks of the Loire. A great deal of the best mountain wine of Rheims is produced from vineyards with a northern aspect, almost up to the northern boundary of the growth of wine in Europe. The vines receive the sun's rays obliquely, on very gentle northern slopes. Yet few would think it safe to plant a vineyard in the north, where it would not receive the direct rays of the sun, and it would ill answer to take the exception for the rule in this respect. The south-eastern aspect in many instances produces good wine, though in Burgundy they complain that vineyards with this aspect are exposed too frequently to the latter frosts. On the whole, in the north the southern aspect is preferred, and in the south the eastern.

The most fatal scourges to the vine grower in the northern parts of Europe are frosts in April and May, especially after the preceding portion of the year has been sufficiently mild to allow the vines, which are very susceptible of atmospherical changes, to be advanced in budding. To obviate the consequences of this they have recourse to artificial means, particularly on the Rhine, where an hour before sunrise they burn litter among the vines. Four persons are sufficient to smoke an arpent of vines, or one acre one perch English measure, which they effect by torches of straw. They continue to operate until the sun shines on the plants. The melted frost falls off. It would seem, therefore, that the injury arose from the sun's action on the frost and not from

the cold. The expense is about tenpence an arpent, exclusive of the labour. Another mode is practised in Germany. Paragelées,* or frost-guards, are used, made of cords of straw, hemp, or the rind or bark of trees. With the cord they surround their fruit trees, letting the ends drop into a vessel of spring water. One vessel will do for all the trees of a large espalier. Cords must necessarily be joined together to surround a greater number of trees, and the two ends must be plunged into the vessel, placed four or five yards away from the trees in front. In Poland and Prussia this singular preservative is found to be effectual in sheltering fruit trees of all kinds from late frosts. Hail is another enemy to the vine grower. This is said to be completely obviated by the use of paragréles, which are now adopted on the continent wherever hail is likely to do mischief; their construction is well known, being simply that of lightning conductors, only less substantial. Cold spring rains and wet summers are injurious to vine culture, and fog is highly prejudicial. Then come the diseases of the plant itself, which a want of knowledge in regard to causes renders obscure in all but their fatal effects.

The vine has a disorder styled plethora, one which arises from want of nourishment, a kind of paralysis; the canker; several diseases affecting the leaves; the fall of the fruit, and others, all necessary to be guarded against in culture. Besides these, wild boars, foxes, and even dogs, enter the vineyard to prey on the grape. Birds of many species are enemies of the grape, though some come on a friendly errand to devour the insects, of which there are many to be found about the plants—in fact, no less than fourteen well-known varieties. These render the attention of the cultivator incessant; in fact, there is no rural occupation, at particular seasons of the year, more onerous. The insect called by the French *hanneton* (*Scarabæus vitis*), in two species, attacks the vine leaf in the south, and does great mischief; snails; the *puceron*, called *barbot* in Médoc, of a golden green colour; also the *Cryptocephalus vitis*, called by the French, among other names, the writer (*ecrivain*), because its track on the leaves

* Paragelées, *not* paragréles; the latter are hail-guards, or conductors, of which mention is presently made. The paragelée would be worth trial in British gardens.

resembles letters. It sometimes disappears for years together, and then returns and commits fatal ravages. The *Rhynchites bacchus* and *rubens* lay eggs in the young leaves, and the larvæ prey upon them and the buds; but it would occupy too much room to designate each species, and the methods adopted for their destruction, which are too often but partially successful. At Xeres, vines are afflicted by a worm which finds its way into the heart of the vine stalk, and destroys whole vineyards. The remedy is to prune the vines, leaving a knot on each branch cut off, as the insects would enter the stock by the incision were it made too close.

The vine will grow in any soil which is not infected by stagnant waters; but it flourishes most in that which is dry, light, and stony, or sandy. In the Arriege, in France, a rich wine, like Tokay, is obtained from mountain-sides covered with large stones, as if the cultivators had left all to nature. Good rich soils never produce even tolerable wine, for the wine is not excellent in proportion to the size and luxuriance of the plant, but rather the contrary. It is best as the soil is lighter and drier. Porous soils, particularly those which are chalky, produce the best wines, fresh and light. Volcanic debris are congenial to the vine. In such soils it comes on slowly, but once rooted it flourishes well. In short, the soil which from dryness and lightness is scarcely fit for any other culture, is best adapted for the grapes designed for wine making, if it be either calcareous or volcanic.

The soils which are granitic, or mingled with decomposed particles of that kind of rock, grow good wines. In Italy and Sicily, the best vines grow among the rubbish of volcanoes. Any light, mixed, friable soil, in which water will not lodge, is congenial to this plant. Such a soil on a hillside is certain, with a genial sun and climate, to yield wine. On the quality of the soil, in every case, the nature of the wine depends.

Good vines do not grow well in close valleys where there are rivers, if they are planted near them, though in vales tolerably wide, where the sun can act with fervour, this is of small moment, as in the Gironde, where about a league from the river are the finest vineyards. Some circumstances relative to differences in the vine are singular. In one little vineyard, that of Mont-Rachet, in Burgundy, hereafter men-

tioned, the soil is the same, the aspect alike, the vines receive the same care and culture, and the wine is made in the same manner, and yet three varieties of wine are produced: one, of the very first character, perfect, Mont-Rachet *Aîne;* another, far less perfect, Mont-Rachet *Chevalier;* while the third, Mont-Rachet *Bâtard*, has rarely any of the qualities of the first-named wine at all! The cause seems inexplicable, unless one portion of the vines draws its nourishment from a stratum which the others do not reach, and thus a different quality attaches to the fruit from something which it obtains from its own peculiar sources.

In ancient times the Romans trained their high vines as they now do in Tuscany, along palisades, or from tree to tree. This mode is followed in some parts of southern France. The vine is planted near a maple, a cherry-tree, or an elm, sometimes with a single stem, sometimes with two; the vine is suffered to interlace itself with the branches of the tree. The grapes are often shaded this way, by the leaves above them, from the heat of the sun, and do not reach maturity, so that the wine made from them is acid and cold. When two stocks are planted, they are suffered to grow up to the fork of the tree, and are then carried in festoons to the neighbouring branches. Columella says, the ancients planted six stocks to one tree; but not more than three are ever planted now. The trees were twenty feet asunder, too, in ancient times, as is gathered from another authority. It is found that by the present method the fruit ripens well. The land is cultivated below with leguminous vegetables: although no object can be more beautiful than a vineyard planted in this manner, the product of the vines is injured by the cultivation beneath, if too extensive. Most persons believe that this is the mode adopted in all vineyards; hence they are disappointed on first seeing vineyards upon the continent, particularly those of the north.

It happens in too many instances that the trees which sustain the vines are irregularly planted; some are too near each other, and some too far off. In particular places a kind of ladder work has been substituted for the trees, about eight or nine feet in height, and placed about the same distance asunder; the vines are then led in festoons from one to the other. At Weissemburgh they are trained in bowers, or

upon palisades. The different methods are denominated in France, that of the high stem training *(tige haut)*, in opposition to the low *(tige bas)*.

By far the greater part of the European vines, if not all north of Provence, are of the low training, and, indeed, this may be styled the general method in France, Germany, Switzerland, and Hungary. Trellis work of arches is adopted in Italy for most villa gardens. In the Campagna, and in Lombardy, poles and trellis work are both used. The vines on the hills are dressed in terraces, and wheat sown between. The vines of Greece, Cyprus, and Candia, are seldom above three feet high, but being very thick in the stalk, and grown like pollards, they are left to themselves for support. In the low mode of culture in various places there are methods equally various adopted for propping the plant. The simplest is the single prop, to which the vine about three feet high is affixed. Another method is to train its branches one over the other, like espalier fruit trees. The plants in some places are so low as to be left to themselves; or they are trained along little rods in circles, or on low trellises near the ground, and carried out horizontally. In Baden they are trained on pyramids of poles, in a complex manner. The result of experience is, that the high training by festoons is best adapted to certain situations in warm climates, and the low to those which are colder; while the vines grown on a sandy site may be left to run along the surface of the earth, though this cannot be done to advantage in soil of any other quality.

Though most vine proprietors have their favourite species of plant, yet many are not choice enough in this respect, and manufacture wine from a dozen different kinds of grape mingled together. The consequence is, that while some few species ripen their fruit at the period of the vintage, others in an unripe state find their way into the wine, and too often impart tartness. It would be unsafe to hazard a vintage on one species of vine alone; but five or six kinds selected with care would do away with this evil. It is from neglect of a similar kind that vineyards become deteriorated.

The grape which furnishes the most saccharine matter makes the best wine; no other quality will remedy a deficiency in sugar. The red fruit should be grown with the white, in the proportion of three red to one white, where

there is no attachment to deep colour rather than a more delicate wine. The red grape contains the colouring principle, the white is believed to impart the delicate flavour.

Vineyards are made in autumn, by which mode a year is gained in the bearing; and not only is there that advantage, but many vines planted in spring fail entirely. In France the vine is propagated by layers of buds, which are taken up after the vintage, and by slips chosen from among the cuttings. They are planted in lines, where the ground will admit, and terrace fashion, one above another, where the declivity is considerable. An interval of four or five feet is left between each line of plants, which are so placed as not to range with each other frontways. The vines from cuttings live longest, and bear most fruit; those from the layers shoot earliest. Crops of vegetables are obtained in some districts from the space between the rows the first year; yet most kinds of vegetables thus grown in vineyards are thought to impart a disagreeable taste to the wine. Slips for propagating the vine, cut in winter from kindly stocks, are tied in bundles. They are immersed in a miry soil for seven or eight days, and planted in spring in a slanting direction.

The ground of a vineyard is dressed in different ways, according to the custom of the cultivator and the nature of the soil. If it be dry and sandy it is sometimes deeply raked. Many vine growers use the plough between the vine, and some substitute the hoe; pickaxes of various shapes are adopted in particular places, the spade, and even the pitchfork. On steep slopes the ground is turned over or raked in a diagonal direction. Weeds must be hoed up, and a hollow left round the roots of the vine in young plantations to retain the moisture; in fact, the earlier years of a vine plantation require great and incessant attention. Though the ground must be kept clear of weeds in light soils, the earth is not turned up to any depth from the surface. Overlabouring at the soil is prejudicial, while everything must be accommodated to the nature of the stratum below. In Spain, and in some parts of the Lyonnais, the ground is left in its natural state, when the roots are imbedded in a rocky superficies slightly covered with vegetable matter. Three or four times a year, in certain districts, the ground is laboured, and in others many times more.

When vines are dressed it must be with great judgment in the choice of material. March is the best time for dressing vines, but litter is never to be used for that purpose. Pigeon's dung is in high esteem. The scouring of ditches or roads is excellent. Ashes on some soils are considered useful; but the nature of the soil of the vineyard must settle the compost to be used when it is required at all. Lupines in some parts of France are sown among vines, and buried when in flower round their roots, where they decay; a practice found to be of singular utility to the crops. A good dressing may be obtained in various old earths from meadows or woods, of a different quality from those of the vineyard; one dressing of this kind will last ten years, and keep the vine in bearing. After all, the judgment of the cultivator must decide on the compost most suitable to the situation. Many obstinately use rich dressing in a considerable quantity, and injure the fruit. The wine made from vines so treated is apt to turn ropy, and be ill-flavoured. The leaves in a year or two acquire a yellow tint, the stems decay, and there is no resource but to renew the vineyard. A moderate dressing only should be given. The decayed branches of the vine itself, the simple leaves of most vegetable substances, such as broom, briar, thorn, lucerne, and several kinds of grasses are observed to fertilise the vine. Marine weeds must be used very sparingly, so must animal manure. That of birds alone is found to be beneficial. The Portuguese and French agree in their experience of the substances useful or detrimental for vine dressing. Some of the finest dry wines are grown where no dressing is ever used, especially where the soil is calcareous. For sweet wines the dressing is not so carefully regulated when used at all. A little road mud, old vegetable earth, and the calcareous wreck of ruined houses, sparingly used once in five years, are said to have proved beneficial in Germany.

Next to the soil and care of the cultivator the season is of importance. A cold wet season, as already stated, is injurious; the grapes produced being insipid. The prevalence of high winds is a source of mischief, and lastly, too high a temperature for long periods together. The favourable season is that which allows the vine to flower in calm, warm, dry weather, followed by soft showers just as the fruit begins to form,

and when the heat desirable in the last stage for bringing it to full maturity is uniform, and uninterrupted by humidity.

Vines may be regenerated. This operation in France is performed by what is called *provignage* and *couchage*. In the first mode, the-worn out or weak plants are removed and their places filled with *provins* from the stronger ones, the old vines being laid in the ground. Only two or three of the younger shoots are suffered to appear above the surface. This should be done in autumn in a warm climate, in a cold one, in February. After the layer takes it is cut from the old stock, which dies off after becoming the root of two or three young plants. In this mode vineyards are often wholly renewed by burial every fourteen or fifteen years. The *couchage* differs in some respects from the former method, but has the same object: the vine is laid in the ground from December till March, but not till the buds appear. Old vines are frequently dug up and cleared, and again planted, by which they receive great benefit.

The vines are pruned three times before they bear fruit, when this operation is again repeated. In pruning there are rules to be observed, dictated by experience, which are too copious to detail. The pruning is directed more especially to the objects of the proprietor as to present or protracted profit. In hot climates pruning takes place just before the fall of the leaf, and that is considered the best period. In the northern and middle districts of France, the first or second week in March is by most growers deemed an eligible time. The vine is frequently pruned with an instrument made on purpose, which accelerates the operation, and prevents the branches from being bruised. Besides pruning, the vines are deprived of a portion of their buds, to increase the size of the fruit; to do this well is considered a work of judgment; and it is generally undertaken immediately after the flowers are put forth.

The vine, as already shown, is not always propped, though in the North of Europe this is generally the practice. The time chosen is after the first labouring of the ground in spring, before budding takes place, care being taken to avoid injuring the roots. The vines are tied to the props in a particular manner, with oziers if attached to a single prop; or if

to espaliers or props placed palisade fashion, with straw bands. Whichever mode is adopted, it should be undertaken just as the vine has done flowering. There is also an operation styled clipping, which is performed by taking off certain shoots above the joints; the object of this is to increase the flavour of the fruit, and it requires great care in the performance. In Cyprus the ground is hollowed in a cup-like form round the plant, to retain the moisture, and reflect the heat, a certain degree of humidity being needful at the proper season.

In order to hasten the maturing of the grape, and increase its good qualities, recourse is frequently had, where wine is carefully made, to the annular incision. A tight band of iron wire has been adopted in Italy and in Germany for this purpose. The practice of incision is supposed to have been known to the ancients, to have been lost in the middle ages, and again resumed at the beginning of the eighteenth century. The method in Italy is to loosen a band of the bark all round the branch, or stem, a little time before the plant flowers. The operation is performed only when a wet or cold season would prevent the setting of the fruit, six or eight days before the flowering, as damp seasons make harsh or insipid ascescent wine. Incision may take place on the old or young wood. The breadth is from a line to an inch. The vine leaves soon show a tint of advancing maturity. Nature generally clothes the naked part of the stem with a substance from between the bark and the body above, which replaces the bark taken away. If this does not happen, the vine dies above where the incision was made, and fresh shoots yield fruit from below. Maturity is advanced from ten to fifteen days by the annular incision, according to the French cultivators of the Côte d'Or and l'Yonne. It is performed there with an instrument made for the purpose. In some countries, on young trees a hempen string, steeped in oil, is used.

The age to which the vine bears well is from sixty to seventy years, or more, and in the common course of things it is six or seven before it is in full bearing. In parts of the Gironde department in France, the vine does not bear well beyond forty years. In others, on a sandy soil, it will live and bear well to one hundred and fifty, or more. Bosc says, a vine in

Burgundy had reached four hundred years, and in some Italian vineyards plants three centuries old still flourish and bear. The ancients gave the vine a longevity of six hundred years. The loss of time in bearing may be obviated by grafting on the stocks, or rather roots. There are two or three different modes of doing this. By that commonly adopted in the Bordelais, a whole vineyard may be grafted for three francs per cent. of the successful grafts, to the workman, and he will graft two hundred vines or more in a day. Vegetation proceeds slowly until July, when the shoots almost dart forth, and grapes are produced for the same year's vintage. The operation is simple but curious, and in saving time to the grower is of the utmost importance, besides husbanding his capital.

There is yet another operation to which the vine is made to submit, in order to improve the quality of the fruit, and that is taking off the leaves. This is adopted only in humid seasons, or situations in the North. In the Calabrias, and south of Italy, they are obliged to have recourse to the opposite mode, and shade their vines with fern from the too-fervent heat of the solar rays.

It is not possible to make the reader comprehend the minute distinction between one variety of vine and another, by any verbal description. In many countries there is one prevailing kind which remains the favourite, as in the south of Spain, where the variety called *Pedro Ximenes* is that with a large proportion of which the wines most valued are made. It was first brought to Malaga by a person of that name, two hundred and fifty years ago. The skin is fine, and the fruit exceedingly sweet. An idea may be formed of the variety of Spanish vines, and the slight distinction there is between them, when Roxas Clemente describes one hundred and twenty species in Andalusia and Grenada alone. Besides the Pedro Ximenes, there is *Uva de Rey*, a white variety with a fine skin. The *Mollar* black, ripening early. It is generally planted in the arenas, or sandy soil, sometimes to the proportion of a third, in the vineyards near Xeres. The *Temprana*, a valuable species, from the name an early ripener. It is white, and is the same with the common *Listan* of Xeres. It is also an eating grape, and is much used in sweet wines. The *Layren*, white, cultivated at Malaga. The *Doradilla*,

white, used in Malaga for wine and raisins, and often mixed for wine with the Pedro Ximenes. The *Larga*, white. The *Jaen*, white and late in ripening; it yields much brandy. The *Bueno*, white. The *Moscatel Gordo* is the large white muscatel from which the best Malaga raisins come. There is also the small white muscatel, or *Moscatel Menudo Blanco*, the *Mantuo Castillan*, of a fine grey skin, the *Marbelli* and *Cabriel;* all these last more esteemed for eating than for making wine. Crescenzio, when he wrote his "Opus ruralium commodorum," reckoned forty species of vine in Italy in the thirteenth century. In France, the kinds most noted are the early black *Morillon*, of two varieties, the *Madelcine*, white, and the vine of Ischia, the first originally from Italy. The vine of Ischia produces fine fruit as high north as lat. 48°. It is supposed to have reached Italy from Chio. Then there is the *Meûnier*, the earliest bearing species known. The black *Bourguignon*, or *Franc Pineau;* the *Pineau blanc, noir, dorè, vert;* the *Teinturier*, or great *Gamet*, and the little *Gamet;* the pearl grape; the violet *Cornichon;* the white *Griset;* the white *Morillon; Pique-poule gris;* the white *Mournain;* the *Muscat;* the *Chasselas*, originally from Cyprus; the *Cioutat;* the black grape of Corinth; the Aleppo grape; the *Vionnier*, grown at Condrieu with the Shiraz, or Scyras grape, said to have been brought from Persia, from whence the hermitage vines are taken. Then there is the *Muscat noir* and violet, the *Isabelle*, an American variety, with a raspberry flavour, the white *Verdet*, the black *Muscade*. The *Souvignan* of the Gironde, white; Barsac, Sauterne, and the Graves, are planted with this variety, and two or three other white species. The *Liverdun*, of the department of La Meurthe, wonderfully productive, yielding at all times twice as much as other vines, and in good seasons sometimes two thousand five hundred gallons to the English acre. It is a black species. The *Carbinet*, of two kinds, has a high reputation in the Gironde, also a black species. In Provence they have the *Passe*, or *Pansc*, a white species, with a tender skin; the *Arignan*, white; the *Bouteillant*, black, a hardy kind; and the *Brunfourcat*, which gives excellent wine. The *Muscat* of Rivesaltes, of which there are three species: the *Gouais*, which has several other names; the *Verjus;* the *Macabeo*, from whence a sweet wine is made in the country; the violet *Corinth;* and numerous

others. Hervey's catalogue of the Luxemburgh collection, published in 1812, reckons of the black oval sorts, thirty-seven; black round, ninety-eight; white oval, forty-four; white round, seventy-three; grey or violet oval, five; grey or violet round, ten; in all, two hundred and twenty-three. The Botanic Garden of Montpelier has five hundred and sixty varieties. Columella reckons fifty-eight varieties anciently, in his book *De re Rustica;* Herrera, fifteen essential species in Spain; Duhamel, fourteen species, with distinct marks adapted to the French soil; while in respect to minute differences in species, no less than nineteen were counted by Dumont, in one vineyard at Arbois.

In the Gironde seven kinds are grown for white wine alone. The *Pineau*, and its varieties, afford the wines of Burgundy and Champagne. There are eighteen varieties. Hermitage, as before observed, is produced from the Scyras, or Shiraz grape. The Côte Rôtie comes from the *Serine.*

In Madeira there are many varieties of the vine; and it is there planted in rows. At the Cape of Good Hope it is planted in the same way, and there are several varieties of the plant. At Madeira, the *Verdelho* seems to recal the French *Verdot;* there is also a species called *Tinto*, from the Spanish *Tintilla.* The grape of Candia, as already stated, was planted there from the East. A French grape from near Orleans produces, on the Rhine, some of the best German wines. Then there is the *Traminer* with a small berry, sweet, and fond of a marly soil. It is sometimes used with two parts of the *Miesling*, a favourite species. The *Kleinberger* is seldom used for good wine. The *Orleans*, *Riesling*, and *Traminer* produce the finer wines. The *Kleinberger* is sometimes grown on trellis work to shelter the other vines. It is a good dessert fruit. But it is useless to occupy further room with this topic; the foregoing sketch will suffice, generally, for a subject on which much more might be written.

It is clear that the species of vine chosen should be adapted to the peculiar nature of the soil, country, and climate in which it is planted. Too often this affinity is overlooked; the custom of the province or country, or the caprice of the proprietor, overruling the more rational and scientific method of adaptation. Very celebrated wines are produced in vineyards where the species of plant is by no

means held in the best repute. There appear to be anomalies in the vine, and the making of wine, which require more acute observers to explain than have yet written upon the cultivation of the plant, and the process of maturing its produce.

It is impossible to determine what particular circumstances cause those alterations in the nature of the vine which occasion its varieties. There is an obvious difference in the produce of vines grown upon particular soils, but they do not alter sensibly the character of the plant. The vines grown upon calcareous or chalky soils are not exclusively designated, any more than such as flourish upon those which are volcanic, and therefore they cannot be thus classified. The best dry wines seem to be intimately connected by nature with a soil more or less calcareous; the sweet are not thus remarked, but provided there be sun enough to mature or shrivel the grape, are produced on every kind of soil. Change of climate may alter the nature of the fruit, but the ground favourable to the plant generally is favourable to each variety, as gravelly, rocky, or sandy spots, whether in the north or south. It is allowed by the French that there is much knowledge yet to be acquired respecting the vine, its adaptation to particular situations, and certain mysteries in its bearing. They do not themselves pretend to know much upon the subject; and if they are not among the initiated, it is in vain to look further for information, since nearly all we know of the vine and its generous produce that is worth knowing is the fruit of their experience and communication.

There is no part of the vine which is not applied to some useful purpose. In Switzerland the leaves are used for medicinal or surgical cures. In cuts and green wounds they are esteemed a sovereign remedy. Decoctions of the juice of the leaves are used in poultices with great advantage. The leaves afford an agreeable tea, requiring more sugar than that of China; it is observed greatly to strengthen the nerves. The prunings, well bruised and pressed, yield excellent vinegar. The leaves and tendrils bruised, and the juice fermented, give a pleasant light drink of a vinous character. On this head the late Dr. Macculloch has treated fully in his work on British wines. The leaves are also excellent food for cows, sheep, and hogs, when other food is scarce; but they

are of so much more importance in the vineyard that they are rarely spared for that purpose. When thus applied, they must not be taken till they begin to fall off. They must then be gathered, put in a dry place, and if salted, pressed, and left to ferment, so much the better. In some places they are stratified with straw, and afford still more excellent fodder. Animals are sometimes turned into the vineyards after the vintage, to browse upon the leaves.

What are called the "tears of the vine" are a limpid distillation of the sap at the time the plant begins budding. The same liquid will make its appearance on the slightest wound. The latter is injurious, but the former is a necessary emanation. The "tears of the vine" are thought in some places to be possessed of valuable properties in keeping off disorders. The liquid is collected in a bottle. The end of a shoot being cut off, it is bent into a circle without breaking, and inserted in the neck: in a few days the bottle is filled. Vine branches furnish potash and salts when burned; basket-work is fabricated from them, and the bark is used for bands to tie the vines to the props. The Germans not only procure wine from the grape, and dry the fruit for raisins, but they distil brandy from the skins or murk, use the sweeter unfermented juice for syrup in place of sugar, and extract an oil from the pips. The pips are collected before the skins ferment, dried, and broken in an oil-mill. The oil is used for domestic purposes, and for burning. The skins, when pasturage is scarce, are given to oxen, but not to cows, as it affects the quality of their milk.

A plant so useful, it need be matter of no surprise, has its superstitious applications. Not only do the leaves decorate the hair of the village girls in some of the southern vine countries, but the mode of plucking them, under certain spells, is thought to discover to the vintage lasses the truth or falsehood of their lovers.

This chapter might be extended; but as the cultivation of the grape for wine is of no moment in England, the general outline of the plan pursued is sufficient to satisfy curiosity upon the subject.

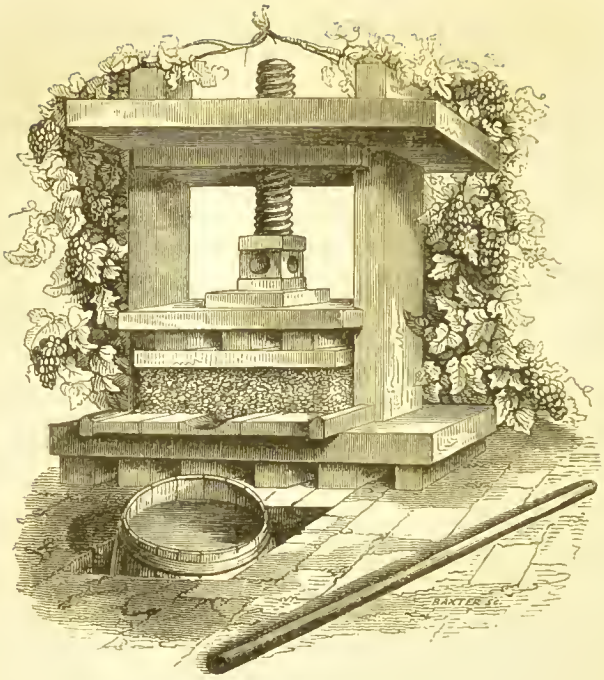
It is not commonly known that the tendrils of the vine may be made to produce fruit. By cutting off branches near the place from which the tendrils spring, in a short time

small nobs make their appearance. These nobs become grapes, equal in excellence to any on the tree. This discovery was made by a gentleman of Strasburg. If report say true, the experiment has been frequently tried by other persons since, and found to succeed.

This must suffice, as old Gower says,

> Of howe men should set vines,
> And of the grape make wines;

which wine-making is described in the next chapter.



[The smaller Wine Press.]

CHAPTER III.

OF THE VINTAGE.

MATURITY OF THE GRAPE—MODE OF GATHERING—PRESSING—TREATMENT IN THE VAT—COURSE OF FERMENTATION—SUBSEQUENT OPERATIONS.

The vintage is the next important operation connected with the vine after the cares of the dresser are over. Not only do the opinions of individuals in wine countries differ very widely upon the management of the vintage, but in some the period of the gathering is regulated by authority. In France this barbarous custom still continues in many districts, the prefets of departments, or sous-prefets, and even the mayors of the communes, who may, or may not, know anything about the matter, issue the order for the vintage to commence, as if the vine grower were not the best judge of the state of his own produce, and did not know when his property was in the best order for yielding him a profitable re-

turn. The consequence of this relic of feudal outrage upon property and free will is, that the vintage being seldom fixed in a proper manner, the fruit after all cannot be collected at once; for while in one place it is matured, in another it is far short of the necessary degree of ripeness. The proper moment for gathering the grape is agreed to be when the pellicle is thin and transparent, not breaking easily between the teeth; when the colour is deep; if the grape be white when it takes a grey tint; if red when it puts on a dark colour, or if violet a deep black. The stems of the clusters, when they have become in substance like wood, losing their green hue, and resembling the main branches of the vine in texture, are another sign; and, finally, when from the pendant cluster the grape gives way readily, the fruit, particularly in the South, shrivelling up from the sun's action, if required for the sweet and luscious wines. These signs are observed in the South of Europe about the end of September, or commencement of October.* In the North the fear of autumnal frosts, which injure the unripe grape, makes the seizure of the exact moment proper for the vintage a matter of great importance. In Hungary the vintage terminates generally before the middle of November, but sometimes later, when frost announces the approach of winter. The vines are then cut. The props are removed, the prunings carried away, and the whole vine-stock laid with its branches along the ground, and covered a foot deep in earth, if possible, before the first snow falls.

The time of the vintage being fixed, the gathering is begun as early in the day as possible after the sun has dissipated the dew. The red grape is generally ripe before the white. In the North they are not so particular respecting the dryness of the fruit when gathered as in the South; in fact, it is often gathered in the north of France with the dew upon it. The gathering is uniformly continued with as much rapidity as possible, if the weather continue fair, so as to terminate the pressing in one day. If this cannot be done the vintage is suspended; for the fermentation in a warm, or even a

* So our poet Spenser:—

Then came October full of merry glee,
Nor yet his noule was totty of the must,
Which he was treading in the wine-fat's sea,
And of the joyous oil.

moderate temperature, is far more energetic than in cold damp weather. It ruins the durability of the wine if the fruit be gathered and fermented at such a time. In Spain the vintage lasts for several weeks, so as to ensure maturity to all the grapes, beginning in September, and ending sometimes not until the close of October. The fermentation takes place only in the casks, vats not being employed in an operation so prolonged.

The clusters in some countries are cut off the plant with a knife. In France the scissors is used, by which the stems of the bunches are rapidly severed. In ruder countries the hand only is applied, a mode injurious to the grape as well as to the vine. The most approved plan is to make three separate gatherings of the fruit. The first includes all the finest and ripest bunches. The green or rotten grapes, or such as have been eaten into by insects, are cleared from the clusters, which are then carefully carried home. The second gathering implies naturally a second pressing. The grapes are not quite as ripe as for the first. The last gathering and pressing consists of the inferior grapes. The gathered bunches are deposited as lightly as possible, to prevent the fruit from being bruised. All dry or spoiled grapes are cast aside, where proper care is used, or fine and delicate wine is to be made. Each labourer places his gathering in an ozier basket, or in a sort of wooden dosser, borne by another labourer with the least possible motion. In France, in the department of the Marne, the fruit is carried on horseback, and covered with cloths. The grapes in the better vine districts are plucked from the bunches; in the others placed entire in the press, stems and all. The best grapes only are used for making the best kind of wine. The astringent principle lodged in the stems is thought to be beneficial, and to impart to the wine a capacity of endurance. When the grapes are picked off it is only for red wine, and is generally performed by the hand. White wine grapes are rarely picked from the clusters. In Spain all the grapes, even for the best sherries, are flung into the press together; nothing but their being at perfect maturity is regarded. In Germany, in the Rheingau, the bunches of fruit are cut off, and sometimes bruised with clubs in place of being trodden. The press is frequently used as far as to the fourth time.

Where a vine grower has land producing different qualities of fruit, he mingles his produce according to the wine he desires to make. Light, or stony soils, yield a bright wine, of a fine bouquet. The fruit from a different soil, by blending the grapes together, may produce a wine more desirable for other qualities, observing that growths of the first quality must alone be intermingled. No improvement can ever take place by mingling good wine with that of inferior quality. Perfect wine can only be made by superior combinations. Delicacy, colour, aroma, bouquet, transparency, are only to be retained by a strict adherence to this rule. A cloudy wine, of little merit, is the result of a good mingled with an inferior growth.

In making white wine, it is desirable that the grapes should be bruised or shaken as little as possible on the way to the press; for when the contrary happens, the colour will infallibly be disengaged from the skin, and the wine will be what is called "partridge eye," and not white. Red wines are bruised or trodden previously to pressing, to disengage the colour from the skin, which is so much avoided in making the white wines. After treading they are thrown into the vat, the colour disengages itself, and the press is applied to the murk.

Grapes were anciently trodden out after being exposed on a level floor to the action of the solar rays for ten days, and were then placed in the shade for five days more, in order to mature the saccharine matter. This practice is still followed in certain cases in one or two of the islands of the Greek Archipelago; at St. Lucar in Spain, in Italy, at least in Calabria, and in a few of the north-eastern departments of France. The fermentation is facilitated greatly by this process. In some parts of France a labourer with sabots treads the grapes out as they come from the vineyard in a square box, having holes in the bottom, placed over a vat—a very barbarous method. The murk is then removed, and he proceeds with fresh grapes, until the vat beneath is full. Sometimes they are squeezed in troughs, by naked men getting into the vats, using both sabots and hands at once. In other places the press is first used, under which the bunches of grapes are placed, and the must is pressed out; but it is found that by this mode the grapes oppose a resistance so

strong as to render the operation tedious. A better mode than treading has been adopted, not unfreqnently, in Franee. Two wooden cylinders, turning in opposite directions, are employed to erush the fruit. There is a still more complete invention of a maehine by M. Aeher, of Chartres, whieh does not permit a single grape to eseape its aetion.

The wine-press differs in eonstruetion in different eonntries. There are several forms. It has already been observed, that for red wine the grapes are trodden before they are pressed, to disengage the colouring matter from the skins; and that in making white wine this operation is never performed. In either ease, when the press is applied, the first pressing is despatehed as quiekly as possible. Of presses, there are commonly the small and the large. The first is a simple serew-press, furnished with bloeks of wood, to replace the void when the murk has been pressed nearly to its utmost. This eommon press is easily understood. Instead, however, of plaeing the bar whieh turns the serew in a hole in the serew itself, it is freqnently omitted altogether. A wheel, of a diameter as large as the spaee between the eheeks of the press will allow, is snbstitnted, the eirenmferenee of whieh is grooved to reeeive a rope, that it may act in the way a rope aets npon a drum in mining machinery. One end of this rope is attaehed to a eapstan, with a wheel of larger diameter, forming the eireumference of half a dozen spokes, whieh are the levers. The rope from the press being wound round the main tree of the capstan, is turned by men at the extremity of the radii, and eonsequently exerts an immense power npon the murk. Others, having the wheel fixed to the serew, are worked by the spokes. Presses are generally of oak, about eight feet square. Some have two serews. Most of the presses nsed in wine eonntries might be greatly improved in the workmanship. In Spain they are very rude, many being mere levers; while in eertain districts portable ones are employed, earried from vineyard to vineyard.

The plank whieh rests on the lower part of the press on whieh the grapes are plaeed, is ealled the *maye* in France. It is furrowed, and slopes a little for the wine to run forwards, where one ehannel eonveys it into a vat sunk in the ground. When the press is heaped as high as is thonght neeessary,

three pieces, or rather beams of wood, are placed upon the grapes parallel with the side of the press—one in the middle, and one at each extremity of the heap, on which rest thick planks, their ends towards the cheeks. Upon these again rest transverse beams, and over them the beam attached to the screw comes down.

At first the press is used gently, that the wine may not overflow. The pressure is then gradually increased, until the murk is moderately acted upon. This is the first pressing. The grapes that did not sustain pressure being scattered over the edges of the heap, are now gathered up, the press relaxed, and being placed upon the murk, the press is tightened again. The wine from this is called of the second pressing. The edges of the whole mass are now squared down with a cutting instrument, so that the mass of fruit is reduced to the form of an immense oblong cake, upon which the cuttings of the edges are heaped, and the press worked again, which makes wine of the third pressing, or, as the wine maker calls it, "wine of the first cutting." The pressing and cutting are repeated two or three times, and what liquid flows is called among the labourers wine of the second or third cutting. Last of all, the murk is frequently steeped to make *piquette* or small wine for the labourers. At Ay, in Champagne, the press is used with great power, and the murk is as hard as a board.

The wine of the first pressing is always kept apart from the rest, especially when the season is hot, and the fruit ripe. It would be apt to take a red colour if mixed with wine of the second pressing, when it is designed to make white wine. There are seasons, however, when it is useful to mingle the first and second pressings. The third, in France, must never be mixed with the two first. In Spain, the *agua pies*, or last pressing, is often mingled with the first, although a jar or two of water has been flung upon the murk between the pressings.

The larger of the wine-presses consists of a screw, acting upon the extremity of two immense levers. It is capable of making no less than twenty-five pieces of wine in four hours. Where vineyards are extensive, as it is desirable to press the produce of the gathering in one day, however much in quantity, this press is useful; but it is the instrument for making

a large quantity of secondary wine, rather than a little of a choice character, and is used principally by the larger vine growers. There is one species of wine made without beating, treading, or pressing; this is what they call in Spain "*lagrima*." The grapes melting with ripeness, are suspended in bunches, and the wine is the produce of the droppings. This can only be effected with the *muscatel* grape of the warm South. In this way the richest Malaga is made. In Cyprus the grapes are beaten with mallets on an inclined plane of marble, with a reservoir either at the side or at one end.

The vats are always cleaned and put in order by the time the vintage commences, in those countries where due regard is had to the character of the wine. The fermentation, carried on in barrels in Spain, in France, and Germany, is effected in vats more or less capacious. Some wash their vats with particular substances. Vats made of stone are washed with layers of quick-lime, to saturate the malic acid existing in the must. Many wash the vats with warm water if they are made of wood; or with brandy, decoctions of aromatic plants, salt water, boiling must, and similar liquids. The practice of using quick-lime for this purpose is very liable to injure the wine.

The quicker the succeeding operation is effected the better is the wine. To this end each vat is filled on the same day, wherever the process is well understood; but they are not quite filled up, lest the must should ferment over. Vats of a very large size are not often employed in cold climates, where the seasons are hazardous, because they take too long a time to fill. In warm climates, the larger the vat the more active is the fermentation.

Fermentation is the mysterious change of certain vegetable matters, when separated from the vital stem, and about to form new combinations. It is rendered active by warmth, while it is retarded by cold. The great principle is the saccharine, without which it would be in vain to expect the process to be perfect. Yet the saccharine principle will remain inactive, unless it be combined with other vegetable matter in due quantity to effect the result desired. A relative proportion of sugar must combine with the substances thus necessary. An attempt has been made to ascertain, by an

instrument, when fermentation is perfect, but its success is doubtful, and of the precise time experience alone still remains the judge.

Certain substances are absolutely necessary to be present to effect those changes, without which nature is inert, and no process goes forward. The materials necessary to fermentation are five in number; for although chemical skill may detect fractional parts of other substances, they are not essential, and only those which are readily distinguishable are necessary, as hereafter enumerated. Other matters, obvious to the observer in wine, do not belong to this mysterious natural process, and may be altered, omitted, or destroyed, without affecting it. Such are colour, flavour, and the astringent quality communicated by tannin from the bruised stones or pips of the fruit.

This subject may be interrupted for a moment to add that there is in wines an essential oil, not known except to chemists. It has been met with in decomposing spirit of wine with sulphuric acid. Two parts and a half of sulphuric acid poured upon one of anhydrous alcohol is a mode of procuring it. It resembles peppermint in smell, and is soluble in alcohol or ether. Of its composition nothing certain is yet known.

The sugar of the grape and of the cane are different. It is the first species that effects vinous fermentation in the natural mode. This species of sugar is the sweet principle in honey, and therefore sugar of honey and sugar of the grape not being the same in quality, this last is the only kind which should be added to the produce of the wine when sugar happens to be deficient in the must, or in making home wines from garden fruits. It is the sugar of the grape that prevails in our wall-fruit, when ripe, and not that of the cane. This ought to be borne in mind, as it may have a considerable effect on the flavour of wine artificially made.

Sugar of grapes consists of—	Sugar of the cane consists of—
37·37 carbon	44·78 carbon
6·78 hydrogen	6·40 hydrogen
56·51 oxygen	48·82 oxygen
——100·66 parts	——100 parts.

The sugar of grapes will not go into fermentation so quickly as the sugar of the cane, and this is one reason why it should be always adopted in preference for aiding the fermentation artificially. This sugar is procurable from starch

by a simple chemical process, and may be obtained more easily still from honey.

The temperature of twelve degrees of Reaumur, or fifty-nine of Fahrenheit, is most conducive to the success of this process; and therefore, when the weather retards the fermentation, it is customary in the North to add hot must to hasten its progress; this must is not allowed to remain on the fire longer than to obtain the highest degree of heat possible without actual ebullition. If the season has been cold, sugar in a small quantity is sometimes added to the must, if the saccharine matter be deficient; shoots of peach or almond trees, or a handful or two of dry elder flowers, are also added. The must is stirred and agitated, and then covered up. In many places the mode of management is different from this, but not materially so. In warm weather, when fermentation proceeds naturally with sufficient rapidity, no artificial methods are taken to expedite it, as in the South of Europe. Even in the North, when the season is propitious, the fermentation is best left to nature.

Vinous fermentation begins in a few hours, or may be retarded several days, especially if there be no communication between the must and the atmosphere; for though wine will ferment when excluded from atmospherical communication, it then ferments exceedingly slow. Some erroneously contend that the wine thus treated is better, and keeps its bouquet in higher perfection.

Sugar, vegetable extract, tartaric and malic acid, and water, are ingredients in the composition of wine; and as they vary in quantity in the fruit, different results are produced on the must undergoing fermentation. First, then, sugar is a great ingredient in fermentation, making the larger part of the product of the matured grape. This substance exists pure in the fruit, and also combined with a vegetable matter which is supposed by experienced chemists to be the great fermentative agent, having a near resemblance to albumen, or the glutinous matter observed in wheat, in which the substance called azote has been discovered. It is to the amount of sugar in the grape that the alcohol, or, as it might in future for distinctness' sake be called, the brandy, has relation in quantity, and consequently the body or strength of the wine. In fermentation the sugar is decomposed and the brandy

formed. In order, however, to make the process effective, the sugar must be combined with another agent, which is the leaven or fermenting principle; this is the substance just mentioned, and enumerated above under the title of, secondly, "vegetable extract," which acts in the process of vegetable fermentation throughout every species of substance submitted to the operation. Azote is present in the substance, which is so analogous to the albumen in wheat. Whether azote is essential to fermentation is undecided by chemists: most likely not. The extract is found in beer, cider, and in all fermenting liquors universally. Thirdly, tartaric acid, or crude tartar. This is as essential as sugar in the manufacture of wine. In dry wines tartar much more predominates than in sweet; in these last the sugar predominates. Wines grown in the South, and of highly matured fruit, cannot, from the want of tartar, be made dry, but are always sweet, because the proportions of sugar and tartar are out of due relation. Tartar, in a certain quantity, is necessary in the production of brandy or alcohol, but in what degree no satisfactory experiment has yet decided. It is to the presence of tartar that wine owes its superiority over other fermented beverages. Tartar, however, must be connected with the last-mentioned substance to proceed into fermentation. The fourth ingredient discovered in wine is malic acid, but not in a large quantity. It is to saturate this acid, which is injurious to wine, that, where it is discovered to abound, gypsum, or plaster of Paris, as it is vulgarly called in some places, is sprinkled over the grapes in the operation of making, from the known affinity of the acid for that substance. It is injurious to wine in proportion to the quantity of it present. The fifth ingredient in making wine is water, in a due proportional degree. Too much water impedes the progress of fermentation, and renders the wine weak; and too little is equally prejudicial to the balance of the component parts of the substances yielding good wine.

If on fermentation a just proportion of tartar does not appear, a dry wine will not be the product; for in the rich luscious wines there is the smaller quantity of tartar, the great richness of the grape occasioning the saccharine matter to be in excess. This difference in the fruit is caused by the climate and sun, and the excessive ripeness of the grape, even

to the shrivelling of the skin in some cases. Thus the rich sweet grape of the climate of Malaga, in which sugar abounds, as may be expected, produces a wine very different from Burgundy, where the tartaric and saccharine principles are perhaps nearly on an equality. In the Malaga wine the sugar is not all decomposed in fermentation; in Burgundy it is wholly so. The saccharine matter is in dry wines wholly changed by fermentation into spirit, or brandy, from simple vinous fermentation. This is most probably not the case with the luscious Southern wines, or they would be much more spirituous than they are. Distillation, however, shows the quantity of alcohol that may be obtained from them to be much greater than from the wines of the North. In France, the wines of the Côte d'Or, or Burgundy, give only one-eighth of their weight in the brandy of Commeree on distillation; those of the Gironde, or Bordelais, a fifth; while a generous wine of the Drôme yields a third part of spirit.

The second fermentation in the cask is a miniature repetition of that in the vat. A precipitation again takes place, and the wine is afterwards racked. A third, called the insensible fermentation, continues for a long period after the wine appears as perfect as art can mature it. Time, which mellows the harshness of the wine, blends more intimately the component parts, while all extraneous matter and the tartar are thrown down, adhering to the sides of the cask. It seldom happens that the wines of the South become acid, because the saccharine principle is more powerful, from the action of the warmer sun, than in those of the North; but this will be noticed further on.

Fermentation in the vat is at first what is called "tumultuous;" the carbonic gas ascends in bubbles to the surface with a hissing noise, and a scum is formed on the surface, consisting of the lighter portions of the impurities of the wine. Heat is evolved; the temperature of the wine increases to ninety or a hundred degrees. At length the vinous odour is perceived, and the fermentation ceasing, all is quiet as at first.

Those wines which effervesce (*vins mousseux*) are impregnated deeply with carbonic acid gas, from their being drawn off before fermentation is complete. This gas disengages itself from all kinds of wine during the process of fermenta-

tion, and when it ceases to do so the wine becomes limpid, and the taste is purely vinous. The first period of fermentation is one of great disturbance in the must, over the surface of which is collected what the French call the *chapeau*—the head, or crust, which swells upward as the fermentation proceeds, the gas escaping through the pores or cracks which form in it. When it is observed to sink down, the time is arrived to close the vat. Space enough must still be left for the carbonic gas to free itself. The time necessary to complete the fermentation differs according to the quality or ripeness of the grapes, the species of plant, the soil, and the temperature of the vineyard. In some places in France, as in Burgundy, the must remains in the vat from six to thirty hours only. Near Lyons, it is left six or eight days, or even as many as from twelve to twenty; in the south-east, from twenty-five to forty. At Narbonne it is frequently kept for seventy days, and the fermentation being over, the wine clarifies in the vat, in contact with the stalks, which add strength to it. It appears that the head, daily acquiring greater consistency, at length completely excludes the atmospheric air, and the wine is deemed secure. This usage it must be unsafe to depend upon; there is great hazard to the wine in the practice. In Portugal about seventy or eighty hours may be the average of fermentation; in Spain, from four to five days, varying according to the temperature. In Germany the stalks are rarely suffered to remain during fermentation; in Portugal always; and in Spain, too, this is generally the practice.

Though experience has shown in France that exposed fermentation is the best, an individual at Montpellier, named Gérvais, claimed the invention, and asserted the superiority of a close method, by an apparatus which is said to have been borrowed from others, but was nevertheless secured by patent. Madame Gérvais was a proprietor of considerable vineyards near Montpellier. She embraced the idea, by no means a new one, that what is termed the vinous fermentation is a mild natural distillation. She proceeded to obtain an apparatus that she imagined would operate so as to return into the vessel the spirit and flavour that was evolved in fermentation, and let out the carbonic gas, which might burst the working-tun. Her apparatus consisted of a vessel, resembling the

head of the ancient still, constructed of such a form as to be capable of being placed securely in the back or vat in which the process of fermentation was carried on; the back or vat was air-tight, with a hole in the top, communicating with that part of the apparatus called the cone, or condenser. This cone was surrounded by a cylinder, or reservoir, to be filled with cold water, so that the alcoholic vapour or steam evolved during the process might be condensed as it came in contact with the cold interior surface of the cone, and, being thereby converted into liquid, trickle down the inside of the condenser, and, through a long pipe, be returned into the fermenting liquor. By the application of this apparatus a considerable portion of alcohol, which had been suffered to escape in the form of vapour, along with the non-condensable gases, was to be condensed and returned into the liquor; and the non-condensable gases carried off by a pipe, which, proceeding from the interior lower part of the cone, and running up the inside of the cylinder in the cold water, passed out through the side, and the end being immersed some depth below the surface of water contained in a separate vessel, permitted the gases to escape, but still under a certain degree of pressure, the object of which was to confine the alcoholic steam and gas within the cone, and allow them a sufficient time to cool and condense. The apparatus being applied to ferment the *must* of grapes, was also said to procure an increase of quantity. This effect, however, has not been confirmed by the makers of wine in France, who have very little opinion of the efficacy of the machine. The error of the machine is said to be the retention of the carbonic acid gas, which ought to be allowed to escape freely, or the fermentation will not be complete, from the want of considering that the quicker the fermentation, the alcohol and perfume will evaporate in a less quantity, because they are superseded by the more vehement evaporation of the gas, which, in that case, occupies the space above the head exclusively, and will not suffer either the alcohol or perfume to rise and mingle with it. The usual method will preserve the bouquet fully as well. The slower the carbonic gas escapes, the less likely the spirit and perfume are to pass along with it. In fact, the suffrages of the best practical judges are against this invention, as not imparting anything new to the wines in quality or perfume, covering the vat being found

fully equal to every object, leaving sufficient space for the escape of the gas. Some persons in the North, in order to hasten the process of fermentation, plunge red-hot iron bars into the wine, and with considerable advantage to the process when the temperature is untoward.

The vats and barrels require great attention; if they are new, the wood of which they are composed is apt to impart a bad and bitter taste to the wine. This is guarded against by repeated washings in cold, and afterwards in hot water, in which peach leaves are steeped, or by a washing of salt water, or rather soaking, to extract all which is disagreeable in the wood, and finally they are washed with boiling must, bunged, shaken, and left to cool. Old casks are washed in hot must, after the tartar has been scraped from them. In case of their exhibiting symptoms of decay they are burned, for sooner or later the effects are sure to be perceived in the wine. Sulphur match is burned in those barrels which afford the least suspicion of their imparting a bad taste, and they are set in a dry place, being bunged up before the match has expired. Before burning the sulphur the barrels must be carefully dried, for damp or water left in them will make the wine taste of sulphur, a flavour which is sometimes much too perceptible in the wines of Germany. No pains should be spared to guard against mischief from this cause. Oak is the wood preferred for casks; but in some parts of the continent beech is employed, because there is an opinion that beech-wood imparts an agreeable flavour to the wine, and brings it earlier to perfection. Casks, or barrels, have various names in different provinces, or countries, without immediate reference to difference of measure. Thus, in the department of the Marne, the cask is called a *queue*, which in the Cher is denominated *tonneau;* in Indre et Loire, *poinçon;* in La Vendée and La Nievre, *pipe;* at Lyons, *botte;* at Bourdeaux, *barrique.* When casks are of a large size they are named a *muid;* and when of the largest that are made, *foudre.* The casks of Portugal are most commonly denominated pipes, so are those of Madeira. In Spain, at Barcelona, and in Valentia, they are the pipe; at Xeres, the *botta* or butt.

Earthen vessels, glazed, are among the most ancient receptacles for wine, which casks have superseded. If they are the least porous they cannot fail to be prejudicial. The an-

cients remedied this defect by waxing, pitching, or liming them; but the wine must have been liable to injury from these materials, and the carriage of earthen vases must have rendered them expensive from breakage. At La Mancha in Spain, at Val de Peñas and Manzanares, they use huge clay vessels, holding eight hundred gallons each, called *tenejas*. Staves are not to be obtained there for vats. The wine mellows in these receptacles, from whence it is drawn off into skins. At Pesth in Hungary, marble vessels are employed to hold wine. In Cyprus, as hereafter stated, conical earthern vessels are used in fermenting the wine, sometimes pitched, or anointed when they come from the furnace with a boiling mixture of turpentine and pitch, mixed with vine-branch ashes, goats' hair, and very fine sand, which never falls off. These vessels contain from twelve to twenty barrels, and must not be confounded with the jar by which Cyprus wines are usually sold. Notwithstanding these last, a large proportion of Cyprus wine is transported in skins. Limed vessels, and those of marble, are liable to be acted upon by wine to its great detriment.

Before taking leave of this part of the subject, it may not be amiss to mention that colour has no relation to the time of the must acquiring vinosity. If the quantity in the vat be considerable, and the weather warm, the wine should remain but a short time, for the fermentation is quickly perfected. If the saccharine principle abound, the must be thick, and the temperature low, the fermentation will be slower. The want of perfection in fermenting in the vat, may be helped considerably after barrelling; but wine suffered to become acid, injured by excess of carbonic gas, or touched with mouldiness, cannot be properly recovered. In regard to colour, some of the most perfect wines in that respect, as well as in delicacy of taste, remain only six hours in the vat. Time, in fermentation, does not add to the depth of the colour, the bruising of the skins alone imparting that quality.

The precise time for drawing off wine from the vat, after the fermentation is perfect, can be attained only by experience. The moment the head sinks, visible fermentation has ceased in the rising of gas bubbles, but the sensible heat being over, it is not always proper to draw off the liquid. Sometimes the proper period is not less than twenty hours

after the wine drawn into a glass seems fine enough, and in all respects ready to draw. When the wine is drawn off, the murk remaining in the vat is again subjected to pressure. It is oftentimes the case that this last wine is mixed with what is first drawn off from the vat, to its great deterioration.

The wine being barrelled, is removed into the first cellar. The best cellars should be slightly humid, and as deep under ground as the nature of the soil will permit them to be, even to fifty feet. If too damp it affects the wine, if too dry the staves of the barrels shrink, and waste the liquor. Light should be admitted by very small apertures, having slides or shutters to close according to the state of the temperature, for which end a thermometer or two are indispensable to hang against the walls. The arch over should be solid, and as thick as possible, in order to prevent any motion above communicating its tremour to the barrels, and the whole should be covered as well in winter as summer with litter, to prevent the action of both cold and heat. The floor should be of earth, well beaten, and the recesses, if any, and the entire floor, should be strewed with sand. If found too humid, the number of air-holes should be augmented; and if too dry, a part of them should be stopped, and those left be narrowed. If by any chance the rays of the sun penetrate by the air-holes, a wall must be built before them, or sloping planks, covered with turf, be fixed above them. The casks should be set upon stands, six or seven inches high, made of square strong timbers. Wedges should be placed under, to keep them steady. No cask should be suffered to touch its neighbour, or the cellar wall, but should stand perfectly insulated, and at the same time immoveable from any slight cause. The casks should stand parallel with a horizontal line through their centres lengthwise, so that all sediment may lodge in the bellying part of the barrel which is lowest. No fruit, flowers, garden produce, or green wood, should ever be placed in a wine-cellar, as they frequently impart a bad taste to the wine, which is wonderfully susceptible of all that impregnates the atmosphere around, and often contracts acidity from extraneous substances lodged near it.

The wine cellared from the vintage requires new cares to

render it fit for the market. The casks, in consequence of the disengagement of the carbonic gas still remaining, are not quite filled up, to allow space for the secondary fermentation. About two inches from the bung is left vacant. A hole is made near the bung, and stopped with a wooden pin, to let out the gas from time to time as it fills up the space above the wine, but care must be taken that no external air enters. When it is found that no more gas escapes, the barrels are filled, and hermetically closed. This last filling in France is known by the term *ouiller*, to ullage, and in some places this operation is performed every day for the first month, every fourth for the second, and every eighth until the wine is racked. In this way the celebrated Hermitage wines are treated. At Bourdeaux it is performed every eighth day. The wine used for filling should be of a quality equal to that in the cask. The cellars must be visited daily, and the wine frequently tasted to judge of its state.

When casks are neglected to be filled up, a white mouldiness, styled "the flower" by the French, covers the surface of the wine, which soon renders it unfit for drinking. To remedy this, the atmospheric air is forced out, after which lighted sulphur is introduced, and the barrel is struck to make all the air bubbles rise to the surface, and force the mouldiness towards the bung; the cask is then gradually filled, and the mouldiness collected at the bung-hole, until it all comes away.

It is said that there is a sympathy between the wine in the cellar and the vine. The former is observed to work in a remarkable manner when the vine puts forth its buds. The fermentation at this period is often obliged to be resisted by artificial methods, as sulphate of lime, camphor, sulphuric acid, and even the application of ice.

The next operation is the racking, to separate the wine from the lees. In Cyprus the wine is kept on the lees to the last. In France, racking is indispensable; such is the difference arising from climate and soil. In some countries the wine is racked in the first December after the vintage, in others once a year in February or March. The first year, in some places, wines are twice racked, in spring and autumn; in others, in May and December, if possible, during a frost. The necessity for racking more than once a year depends upon the nature of the wine. Some wines, of a generous

quality, will remain on the lees three or four years, but in general they should be racked before the first vernal equinox. There are some who, instead of racking, by troubling the wine, and remixing it with the lees, establish a second time a species of fermentation, which is intended to ameliorate its quality; but this must be executed with great care, to avoid ascescency, and the wine must be racked the instant it approaches fermentation, and be placed in a colder situation than that it previously occupied, having fined it before the racking, if it appear at all troubled. This should be done in fine dry weather.

In racking wine, the cask should be bored about three fingers' breadth above the projecting part of the staves with an instrument made on purpose, and the cock introduced, so as not to waste more than a few drops of the wine, and exclude in the operation the smallest portion of external air. The bung is slightly lifted, to permit air enough to enter and set the wine running. At Beaune, in the Côte d'Or, the wines of which rank so high in estimation, they are racked by means of a brass tap, having a straight stem. To this stem is fixed another tube, the end of which is inserted in a wooden pipe, of a slightly conical form, which is introduced into the empty cask. The cask is placed on the side; a small hole or two are bored with a gimlet in the uppermost stave, which, when the cask is full, are stopped up, and the cask set in its place. The wine is thus racked without the least disturbance.

In some parts of France, as at Condrieu, on the Rhone, the wine is racked two or three times, twenty or thirty hours only passing between each operation. If the wine is displaced for any reason, while in the growers' hands, it is generally racked each time. At Xeres the sherries are racked in general but once, although there may be here and there a particular exception to the rule.

Wines which do not become limpid by racking are submitted to the further process of fining, as afterwards described in this work, and then racked. Many kinds of wine require, from the extreme fineness of the particles of the lees held in suspension, to be put through this process before they are fit for the market. The wine during the operation is always strongly agitated with a cleft stick. It is observed

that the inferior wines lose their harshness by this process, and that the best growths acquire greater delicacy.

A word or two may be added here respecting the employment of sulphur matches, which sometimes imparts a slight taste to wines when ill done. The object is to impart to wine clearness and the principle of preservation, and to prevent fermentation. A little cotton cloth is rolled up, until it is an inch or an inch and a half in diameter, and six or seven inches long. This is dipped in melted sulphur, to which, rather fancifully, certain aromatic perfumes, extracted from sweet-smelling flowers, are sometimes added. The match is lighted, and suspended in the cask by means of an iron wire, the bung is then closed. This process injures the colour of some of the red wines, and the substitution of a little brandy flung into the cask, and set on fire by an inflamed string, or cord, while the hand is kept over the bung-hole, is found to answer the same purpose, without injuring the wines. The cask, as before stated, must be perfectly dry when this is done, the smallest quantity of moisture in it retaining the sulphur and tainting the wine.

In the south of France a quantity of wine is made, called *muet*, for which the grapes are trodden and pressed at the vintage, and the wine is fined immediately, to prevent fermentation. This wine, or rather must, is next poured into a barrel until it is only a fourth part filled; above the surface of the liquid several sulphur matches are then burned, and the bung closed upon the fumes. The cask is now violently shaken until the sulphurous gas is absorbed, so that none escapes on opening the bung. More must is then added, and fresh sulphur, and the cask treated as before. This is repeated several times, until the cask is full. This must never ferments; it has a sweetish flavour, and a strong smell of sulphur. A quantity of proof spirit is now added, and a wine highly spirituous is the product. It is sometimes called Calabrian wine, and is generally employed to give strength, sweetness, and durability to wines which lack these qualities.

[Gathering of the Grape.]

CHAPTER IV.

THE VINTAGE—(*Continued.*)

ACCIDENTS TO THE PRODUCT OF THE VINTAGE IN ITS SUBSEQUENT STATE—REMEDIES—TREATMENT AND USES OF THE MURK—OIL OF GRAPE-SEED—BOILED WINES—VINS DE LIQUEUR, DE PAILLE, JAUNE—STRENGTHENING THE PRODUCE OF WEAK VINTAGES.

Wines are subject, from known or unknown causes, to deterioration, or malady, soon after they are made. The two most dangerous changes to which they are liable in the maker's hands, are becoming oily, or contracting acidity. Oiliness is a milky appearance, put on by wines made in a wet season, and ill fermented. The wine loses its natural fluidity, and becomes, what is called in England, ropy. White wines are most subject to this malady, not in the wood, unless of meagre quality; but they will sometimes turn oily in the bottle, however well corked. After a certain time has expired they will again frequently become pure. The white substance at first seen in the wine turns brown, shrinks, and detaches itself in scales. The wine then takes its usual clear colour, and is cured. It is not prudent, however, to leave the cure to chance. Cream of tartar is often applied as a remedy in France. To each barrel holding seventy-eight

gallons, about four quarts of wine are allowed, heated to the boiling point, with from six to twelve ounces of the purest cream of tartar, and the like quantity of sugar, thrown in, and well mixed up. This is put into the barrel hot, the bung made close, and the cask shaken for five or six minutes. In case there is reason to think the bung will fly, a little hole is made near it with a gimlet, to be stopped with a peg as quickly as possible, so that only the smallest quantity of the carbonic acid gas thus generated can escape, for it is to the generation of this gas that the wine is indebted for its cure. Two days afterwards the wine is fined in the ordinary manner, but with the bung closed. The cask is then shaken, and returned to its place. After the expiration of five days more it is racked. Wine in bottles so damaged is uncorked, emptied into a barrel, and treated in the same manner. Some remedy the malady by passing the wine over new lees, then fining, and sulphuring it; others, by placing the bottles in a higher temperature, and in the fresh air; and some fine it with whites of eggs and fish glue beaten together. But these methods will not restore the wine to the state it attains when naturally cured. In Spain, from the slovenly fermentation, and mixture of bad grapes with good, ropiness is very common. It is cured by mixing brandy with the wine, principally sherry, which also makes it more agreeable to the English palate. If used early, this is considered to prevent the mischief altogether. Picking over the grapes would be a more rational and wholesome preventive, but the Spaniard is the slave of custom, and perhaps too idle to be at the trouble.

All wines are liable to turn acid, those which are weak more especially, if ullage be allowed; therefore the casks must always be kept filled up to the bung. Wines are observed to be most liable to this disorder about the time of the vines being in flower. They never recover from this state without aid, but get worse and worse until good for nothing. By taking the malady at the moment of its appearance, the evil may be arrested. The wine must be drawn into a cask, well sulphured, and placed in a situation colder than that in which it previously stood. Honey, or liquorice, is often dissolved in the wine, or cream, or the wine is saturated with acetate of magnesia. Many use gelatine of bones; but the

best mode is to pass it over the lees at the vintage, when it will lose its acidity. In the spring succeeding, however, it is almost certain to revert to an acid state again. Thus far, provided the wine is taken at the first appearance of change, if it be at all advanced, the malady is hopeless, and the wine will infallibly become vinegar.

Sometimes the acidity of wine is only superficial, and when that is the case an instrument is adopted in France, which passing deep into the contents of the cask, fills it without the least disturbance, until the bad portion overflows at the bung-hole, being displaced by that which is introduced below in a sound state.

Bitterness is another malady to which the best quality of wine is subject. It follows the insensible fermentation either in the wood or bottle, and does not show itself until the wine is old. Some of the best Burgundy is subject to bitterness, especially if it tasted rough on attaining maturity. The wine is generally clear during the time it is thus affected. If it happen in the cask, it must be passed over new lees, or wine of a younger growth of the same vineyard; but this only renders it liable to new changes, and injures the bouquet. It should be afterwards fined with eggs, suffered to rest two or three months, and then be racked. If the wine is in bottle, it will often re-establish itself in two or three years, but it must not be moved. The wine will lose some of its colour and bouquet, but become finer, and good for drinking. If moved it must be decanted, which some persons do on first discovering the malady, and repeat it as often as there is any deposit. Almost all wines change colour with age, and generally in proportion to their original deepness of hue. When this is the effect of malady, they lose their transparency; the red become black, and the white a livid yellow; the taste, also, gets worse. This is a new fermentation, and is stopped with purified tartar, reduced to a fine powder, and put into the cask, which is shaken, with the bung open, that the gas may escape freely. The wine must be then drawn off into a well-sulphured barrel, placed in a cool cellar, racked, and fined. If not thus restored, such wines are mingled with those of a newer vintage, from the same vines, but not of a vintage too young. Sometimes

wines thus disordered in the bottle will recover themselves, though this can rarely be depended upon.

Wine which is pricked, or has a flat dead taste, shows that the external air has been admitted either by the cork, if in bottle, or from the bung being ill fitted, if in the cask. In such a state the bouquet is lost, and in the next state of deterioration it exhibits the white filaments already mentioned from another cause, denominated "the flower." This mischief is remedied if the wine be not too far gone, and possess strength and body, by racking it into a cask just emptied of sound wine, and sulphured. It is then closed very carefully for fifteen days, fined, racked, and bottled. Should the wine be too far gone for this mode of recovery, a third part of sound wine is added, in place of a third subtracted, which should be younger and fuller of spirit. A better mode is to add to a cask containing two hundred and forty bottles, thirty or forty quarts of fresh lees, obtained from racking newer wines; these should be well mingled with the spoiled wine once a day, for three or four days. It is then to be racked and bottled. If near the vintage time, the wine is passed over the murk, and this is found an excellent remedy. Preparations of lead have been used for the purpose of recovering wine thus injured. Those who use them act disgracefully: such wines are highly deleterious, however small the quantity of lead which may have been infused. It is an excellent thing to throw cold well-water over the casks, and apply ice below them, when there is reason to apprehend that wine is turning; thus early allaying the elements of mischief.

A taste of mouldiness is a fatal accident in wine, and may arise from many causes; such as a bad or foul cask, a musty egg employed in fining, or decayed grapes in the vat. M. Chaptal gives an account of a nauseous odour, which disappeared after a long fermentation, found to proceed from a vast number of wood-bugs which had been gathered with the grapes and crushed in the press. Drawing off the wine into a well-sulphured cask is a good practice, adding some bruised peach kernels, or almond wood, by which means, if the injury be slight, it is remedied. Bone charcoal is good for the same end, or burnt bread crust, suspended in the wine. If, how-

ever, the taste be very strong and fixed, it cannot be recovered; it is in this case unfit even for distillation or vinegar.

New wine is sometimes frozen. To recover it, racking into sulphured casks is had recourse to, with the addition of brandy. After this it may be fined and bottled. The aqueous part of the wine is that which congeals. This has furnished wine-growers with the hint to expose their wine to a frost, that it may congeal a proportion of the watery part, and then rack off the residue, which is by some thought to be improved both in body and spirit.

Some wines deposit in growing old a matter totally different from the lees. One kind is found adhering in a lining to the bottom of the bottle or vessel; another species is suspended in the liquor, being too light for deposition. Some have imagined these to consist of preparations of lead used by the maker of the wine. When this deposit is burned upon charcoal, it gives out a vapour which smells like burned tartar; if continued on the burning coal, a white residue, which is pure potash, will be obtained. Preparations of lead are easily detected in wine by throwing sulphate of potash, or liver of sulphur into it, when a black precipitate will be formed.

Tartar precipitates itself in the form of small crystals in all good wine. In wines which are oily it takes the appearance of sandy mud, as well as in those not duly fermented. Tartar communicates no bad taste, nor does it alter the clearness, except in the slightest possible degree; on the other hand, it assists in the preservation, and makes the wine less subject to change or malady. Its appearance in the bottle should never cause it to be decanted, if designed to be drunk on the spot. If the wine is to be moved, it is absolutely necessary to put it into fresh bottles, or it will remain a good while cloudy, if not be ruined by contracting a bad taste. In decanting it into new bottles great care is requisite, and the operation must not be hurried. In France an instrument has been adopted to decant wine without disturbance, even to the last drop, which is hereafter described in the Appendix.

Red wines give out much more deposition than white. Those which are of such a light nature that they appear in the wine the moment the bottle is touched ever so slightly, cannot

be decanted perfeetly clear, with every precaution. Of this class are the wines that sparkle, or the *mousseux*.

One cause of a bad taste in wine arises from the gallic acid which exists in the new oak used for the barrel, becoming more or less disengaged; it is apt to render the wine rough and hard. Oak staves for casks are steeped for some days in a strong lye of wood ashes; this prevents the wine from contracting astringency when the staves are put together. The taste is very difficult to remove, and often impossible. The casks are washed with quenched lime, and then with water, until it comes away clear. Wines affected by the oak of the cask, are said in France to have a flavour of the wood. A slight musty taste is sometimes contracted from the wood of the barrel, which is corrected by agitating mustard seed, juniper, or sage, on the wine. These are supposed to act by their essential oil, and thus restore it. Another taste is that of musk, contracted also from the barrel; it is got rid of by ventilation.

It has already been observed, under the head of "Culture of the Vine," that it is one of the most useful plants known, for every portion of it may be applied to some purpose. The must of the South is employed in making a rich confection with citron and aromatie sweets. The richer pears, apples, prunes, melons, mushrooms, and roots of various kinds, are mashed and mingled with must boiled down to a syrup, till they are incorporated by methods whieh it would be foreign to present objects to particularise.

The murk, after being taken from the vat, is still rich in must, and is aecordingly again submitted to pressure. The product is nearly equal in quality to that first taken. This has been noticed already. On the residue of the grapes, the refuse of the vintage, together with the murk, hot water and syrup are thrown, and the product is a very small wine, eooling and pleasant to the palate, flavoured with peaches, elder for colour, and a little Florence iris. This is commonly called *piquette*, and is often given to harvest people and cultivators in the South during the last burning days of the summer, or rather autumn. To prevent it from turning acid, honey is sometimes added, and cream of tartar, which aids the fermentation and the spirituous product. White grapes are deemed better than red for this purpose.

The murk was anciently thought injurious. Pliny wrote, that grapes lying among the murk, or the refuse of the kernels and skins, after the press was used, were hurtful to the head. One hundred and ninety-five parts of the murk burned furnish five and a quarter of potash. The murk, beaten in water and distilled, produces brandy of a secondary quality. Vinegar is also extracted from the murk acidified. Verdigris is made from the murk by placing plates of copper and murk alternately in a vessel, to the diameter of which the plates fit. The whole is wetted from time to time with acid wine. When the oxidation is complete, the verdigris is taken out, and put into packages for sale. The murk is eagerly sought after for nourishment by all the herbivorous animals. It is given dry, or mingled with other fodder. Fowls are remarkably fond of it. In some places it is eaten fresh from the vat by cows and mules, but it intoxicates and injures them when given in that state. Further, the murk is one of the best dressings for the vineyard of any known, especially if mingled with doves' or pigeons' dung. After the vintage, it is a custom among the more judicious wine-growers to place large quantities of murk in the dove or pigeon-house, the pips being eagerly sought after by the birds. From thence the murk is taken, impregnated with pigeons' dung, to pits near the hog-sties, which they drain, and which are lined with the dung of the hog. On this the murk rests, and on its surface is heaped the dung of every kind of fowl which can be collected. This is considered the best dressing for the vine of any known. It is placed round the stumps over the roots in the month of February, when the weather is fine. The first rains carry the salts from the dressing down to the roots, and the effect of the operation is sure to appear in due time.

The murk is often dried from the press, and burned, where fuel is scarce, being laid up for winter use, exactly like tan in some parts of England. In a state of fermentation it is found to be useful as a bath for rheumatic limbs, by exciting perspiration. It is said to be a specific for the rickets, used in the same way. Fractured limbs, placed in a vessel of murk hot from fermentation, for a longer or shorter time, as may be necessary, are said to be consolidated more rapidly than by any other means.

Even the seeds of the grape are applicable to useful purposes, besides feeding pigeons. Separated from the murk by washing, and carefully dried, they are ground, as already stated. The produee is very superior to that from nuts, either for eating or burning. No bad odour aeeompanies its use, and it burns as bright as olive oil, without smoke. This employment of the pips of the grape is an Italian invention of about a century old. The product is, in Italy, about nine per eent. of oil. Too little is made to allow of exportation.

It is not needful to go into minute partieulars upon the foregoing applications, because England is not the eountry of the vine; they are enumerated to render the subjeet more complete, and to afford an idea of the exeeeding value of the vine where the elimate is congenial to its maturity. It will not be out of plaee here to mention that there are different kinds of "domestie" wines, as the French designate them. What are ealled domestie wines in Franee are those which are rarely exported from the neighbourhood, where they are made generally for home eonsumption. Strangers are very little aequainted with these. Sueh wines are a preparation of the grape exceedingly rieh. By the term is not to be understood boiled wine, sueh as is used for sherbet, nor that made to mingle with sherry, as at St. Luear, in Spain, first undergoing fermentation; but only eoneentrated must, boiled, with a mixture of brandy, and sometimes of aromatie seeds; in fact, rieh syrups.

Boiled wines, *vins cuits* (*vino cotto*, *Italian*), are of aneient date, having, it is supposed, passed very early from Asia into Greeee. They are eommon in Italy, Spain, and Franee. The ripest and finest grapes are selected, generally of the Museadine species, gathered during the hottest part of the day, in order that they may be free from dew, and humidity of every other kind. They are carefully moved, laid upon hurdles, and exposed for five or six successive days to the sun's most ardent rays, turning them at least three or four times every day. They are then trodden out, as is the usage with the eommon grape at the vintage. The must is placed over a clear fire, with as little smoke as possible. The wine must be boiled until it is redueed to one-third of its original quantity. It is then skimmed and poured into wooden vessels, carefully cleaned and quite new, to remain until eool,

after which it is barrelled up close. This wine is very pleasant to the taste, of a deep amber colour, delicate and generous. Corsica is famous for such wines, which are treated so judiciously in the boiling, that in the north of Europe they are taken for Malmsey or Canary. When very old they are often passed off for Cyprus, Tinto, or Malaga, of the best kind, as the owner may wish them to appear. Boiling is also adopted to make new wine have the appearance of old. For this purpose, it is raised in temperature close to the boiling point, barrelled, and bunged up directly, and in three months it is found possessed of the character of wine kept from six to ten years. Bourdeaux wine two years old will thus acquire the flavour of that which is ten or a dozen in age. Port wine is often thus treated in England by placing the bottles in tepid water, and raising it to the boiling point. After remaining but a short time in the cellar, it will deposit a crust, and put on the character and virtue of wine which has been cellared for years.

What are called in France *vins de liqueur* are those in which the saccharine principle has not entirely disappeared, and been changed into alcohol, during the process of fermentation. Wines of this sort abound, both red and white. Of these are the sweet wine of Cyprus, the white of Rivesaltes, Syracuse, Malvasia, Malaga, and similar kinds. Unfortunately, the wines sold under this name are not always genuine; the practice of adulteration, by which the more valuable qualities of this species of wine are deteriorated, is but too common, and it is less liable to detection than in dry wines.

The wines called *vins de paille* are so denominated from the grapes being laid for several months upon straw before they are taken to the press. Sometimes, instead of being laid upon the straw, they are hung up in straw tresses. If the wine intended to be made is what is called *demi paille*, the grapes are thus exposed for fifty or sixty days only; if for *vin paille* wholly, they remain for three or four months in the foregoing state. In the department of La Meurthe, in France, *vin paille* is called *vin de grenier*.

The Hermitage *vin de paille* is not fermented for some months after it is made, so that in reckoning its age, the first year from the vintage is never taken into account. It is some-

times in a state of fermentation for six years, and not until this fermentation has ceased for two or three years is the wine fit for consumption.

What is called *vin mousseux*, which is best described by what is understood in England of Champagne, is divided into *grand mousseux* and *crêmans*, or *demi-mousseux*. The product of the second pressure of the grape in the department of the Maine is called *vin de taille*. The *mousseux* wines of Arbois are called *vins blancs de garde*, and when old, *vin jaune*.

There is no pure wine in France like that which is designated claret in England. This wine is a mixture of Bourdeaux with Benicarlo, or with some full wine of France. *Clairet* wines in France signify those which are red or rose-coloured. Thus rose-coloured *mousseux* wine is called *clairet*, or *rosé;* there is no such original term as claret in France for wine; it is an English corruption of *clairet*.

It is the practice of wine-growers to mix several growths of wine together; but this is not done by the grower so frequently for the purpose of adulteration, as to give body or strength to the product of a weak vintage. No honourable wine grower will sell wine which has been thus treated without mentioning the circumstance to the buyer, supposing he has been obliged to amend his light wines with those which are stronger, and of a more generous quality. There are mixtures of this kind which may even be beneficial. In the Bordelais they mingle wines on the lees to correct the roughness of their growth. Hermitage, the black wine of Cahors, or of the best vineyards of the Gard or Herault departments, are thus applied. A perfect fermentation ensues, and the wines thus embodied are excellent Medoc. Adulterations of wine, of which more anon, are the work of the dealer rather than of the grower, and rank with those imitations extracted from all sorts of substances, for which some individuals are said to be celebrated in the trade.

[The Joys of the Vintage.]

CHAPTER V.

WINES—FRANCE.

GENERAL REMARKS—FRANCE THE FIRST WINE COUNTRY—QUANTITY OF LAND IN VINEYARDS—AMOUNT AND VALUE OF PRODUCE—HEAVY DUTIES TO WHICH WINE-GROWERS ARE SUBJECTED—WINE EXPORTS BY SEA—VALUE OF EXPORTS—HIGH GOVERNMENT DUTIES IN PARIS—FRENCH WINE MEASURES.

FRANCE is the vineyard of the earth. Her fertile soil, gentle acclivities, clear sunny skies, and fine summer temperature, place her, in conjunction with her experience and the advantages of science applied to vinification, the foremost in the art of extracting the juice which so gladdens the human heart. She is able to manufacture within her own limits every description of wine: from the harsh product of her northern provinces to the luscious malmsey of the south; from her delicious Champagne and Burgundy, which have no equals, to her rich Lunel and Frontignac; with all the intermediate grades of class and quality. Though custom may have reconciled wine-growers in many districts to absurd habits, detrimental to the perfection of their produce, and though pecuniary means are frequently wanting to enable

wine-growers to have recourse to improvement — though heavy and absurd taxation has made it far more profitable to manufacture wine in the largest quantity, and at the cheapest rate, than to grow the best, there are proprietors of vineyards enough with adequate capital, men of integrity, industry, and ingenuity, who keep up the excellence of their wines, and employ every attainable method for improving their growths, so as to maintain the eminence which France has acquired over all the world for the vinous productions of her soil. The number of the proprietors of vineyards in France is very great. The highest year of produce from 1829 to 1833 gave 40,038,702 of hectolitres, and the lowest 15,281,395.

The wines of France are grateful and beneficial to the palate and to health. They do not, by being too strongly impregnated with brandy, carry disease into the stomach at the moment of social joy. They cheer and exhilarate, while they fascinate all but coarse palates with their delicate flavour. Their variety is very great.

There are six departments of France which are not friendly to the vine. With these exceptions, the country may be called one vast vine garden. In eighty of the departments wine is made, although of varying quality. The number of hectares* in cultivation in the year 1823, was 1,736,056, or about 4,270,000 acres. The annual mean product, 35,075,689 hectolitres, or 920,721,088 gallons, at about $6\frac{2}{5}$d. per gallon, valued at 540,389,298 francs, or 22,516,220*l.* 15*s.* sterling; not, indeed, the prodigious sum which it has been made by some calculators, but still an enormous amount for a country which grows corn besides for thirty-three millions of souls. In 1806 the vines were estimated to cover a surface of 1,674,489 hectares, or about 4,142,600 English acres. The minister of commerce, in 1828, stated that he thought the produce 600,000,000 francs in value, or about 24,000,000*l.* sterling, at $6\frac{1}{2}$d. per gallon English. The calculations made in 1806, and for several years subsequently, were not correct, while the valuation and produce were exaggerated. This has been proved during the increased progress of the *cadastre*, by which means more accurate results have been obtained.

* The hectare is 2 acres $1\frac{3}{4}$ rood English.

For every hectare cultivated throughout France, a mean produce of 22 hectolitres $6\frac{6}{10}$ litres was given for the years between 1804 and 1808. The subsequent calculations, which are more correct, give an average of 20 hectolitres 27 litres each hectare, or 514 gallons imperial measure to every $2\frac{4}{10}\frac{7}{0}\frac{8}{0}\frac{6}{0}$ acres English.

A portion of the produce of the vines, amounting to 5,229,880 hectolitres, or 115,057,360 gallons, is distilled into brandy, and produces 751,945 hectolitres of spirit, of different degrees of strength, besides 70,015 distilled from the murk, yielding 37,288 of alcohol; the produce in pure alcohol being 469,817 hectolitres. The total value of wine and brandy exported from France into foreign countries in 1823 was 76,639,026 francs, or 3,193,292*l.* 15s. sterling. Thus, besides growing corn and vegetables upon a system by no means complete or economical, besides all her sterile and forest lands, and in great part of the middle and south a defective husbandry compared to that of England, France annually exports above three millions sterling of her agricultural produce in wine only—a proof of the great fertility of her climate; and when her population is taken into account, a thing by no means discreditable to her industry. Over and above the foregoing quantity of grape brandy, 93,457 hectolitres are distilled from corn and other substances besides the vine; and between eleven and twelve millions of hectolitres of beer, perry, and cider are made. From these latter, as well as corn and potatoes, brandy is distilled, carrying the total amount of brandy of all kinds to 915,417 hectolitres, or to 553,086 hectolitres 27 litres of pure alcohol. In gallons this is about 24,029,696, nearly 9,000,000 of which are exported. In France, the consumption, therefore, for all purposes, is a little above 15,000,000 of gallons, with a population of 31,000,000; in England it is nearly 28,000,000 of gallons, with a population of 24,000000. The value of the wines has nearly doubled since 1788. They were then valued at 14,853,877*l.* 9s. 2d., but in 1823 they had reached, as already seen, 22,516,220*l.* 15s. sterling.

Some of the wines of France will keep good for a very long term of years. Roussillon has been drunk a century old, and still found in high perfection. Many other kinds are found at fifty or sixty years old to remain good, particularly

such as are grown on the Rhine, in the Eastern Pyrenees, *ci-devant* Roussillon, which boasts wines beginning to be drank in England under their proper denominations, also in Cahors, in the Gard, and the Var. The wines of Champagne, Burgundy, and Medoc, are comparatively short-lived, being more delicate, and having less body. For the classes of these wines see Appendix, also for the departmental produce, with British imports and duties.

While the cultivation of the vine in France is exceedingly varied, the treatment of the fruit at the vintage is more or less in accordance with science, in proportion as the wine made is in demand beyond the limits of local consumption. In one part of France the wine vats are oval, and during fermentation the carbonic gas is only suffered to escape through a bunghole, with the view of preventing too much of the spirit from evaporating. A cover is luted on in some places, and a small orifice only left open. In others a coverlid alone is placed over the vat. Fine cloth is found to answer very well in a district or two where it has been adopted, the spirit being retained while the gas escapes. Thus there is no general uniformity in an essential part of the process of wine-making throughout France. Districts vary from each other in practice, and science has not yet universally overcome usage.

In cultivation it is precisely the same; and the beautiful vineyards of France, which so charmingly clothe the sides of hills, otherwise barren from not suiting a different purpose in agriculture—even the rockiest and shallowest lands, from the Moselle to the Mediterranean, from the Rhine to the Atlantic—display in this way either the skill or the prejudices of the people. As a whole, what a picture does this rich country present, flowing with corn, silk, wine, oil, and honey! Corn, vines, mulberries, and olives, dividing from north to south the soil which a genial sun warms, and an agricultural population look upon with unfailing joyousness.

In other countries, to nature is left almost the sole management of the production of such wines as obtain a celebrity beyond the territory in which they grow. In Spain nature has done everything, and man very little. One of the finest red wines in the world is the Val de Peñas, yet it is rarely to be drank beyond La Mancha without the defilement of pitch,

from the goat-skins in which it is carried. In France the slightest foreign taste, scarcely perceptible to the stranger, would not be suffered in the better classes of wine. The national honour cannot be more scrupulously watched, than the purity and perfect quality of the fruit of the vintage is regarded by the better class of vine-growers.

It is impossible, notwithstanding the self-willed notions of wine connoisseurs, that anything approximating to the truth can be known respecting the wines in repute, no longer back than the middle ages. The aroma, the perfume, the exquisite delicacy which distinguish the modern wines of France, were, it is very reasonable to believe, unknown two or three centuries ago. We find that the wines of districts, which were once celebrated, are now very indifferent, or the palates of our forefathers must have been much less refined than our own. That the wines in France once praised highly, and now deemed of third-rate quality, may not in reality be much altered by time, is very probable. When the ladies of nobles made their breakfast in England upon salt beef and strong beer as luxuries, it is very likely that the taste of the wine-drinker on the continent, a few miles to the south, was after a pattern equally coarse, and that in reality it is modern refinement, rather than the deterioration of the wine, which induces a belief that either the climate, soil, or wine, in particular parts of France, is greatly fallen off. That a vineyard may deteriorate from neglect, or want of care, or through bad planting, there is no doubt, where the taste, as in our time, is so nicely adjusted; but our forefathers were hard men, and the strength, rather than the flavour of wine, was their criterion of its excellence. The Church, among the richer disciples of which good drinking formed a part of orthodoxy, was the patron of the vine in the time of her flourishing authority and almost sovereign power. Among the sensual of the cloister, rather than the court, was found the better order of wine tasters and wine cultivators. The best growths of a district were always on monastical lands, and to this day they retain their sites. They were cultivated by the monks, often with their own hands at first, until their establishments grew wealthy, and then by their dependents. Where the plants have been carefully kept up, they furnish

wines not at all deteriorated, it is probable, but rather the reverse, from the earlier times of their history. Every abbey had its vineyard: and if, subsequently, the wine produced be not as good as it was within human memory, it may be attributed rather to less assiduous cultivation, than to change of soil, or to any natural alteration. There are spots in France, the wines of which it was once the fashion to praise highly, which are now deemed very inferior in rank. Fashion and taste are for ever changing, and these alone might contribute to account for what are easily to be traced up to their causes by an exertion of common sagacity.

In France, wine has been subjected to heavy duties, altogether amounting to more than twenty per cent. These taxes are vexatious; a portion of them is paid only in the towns and cities. Together, they amount to the sum of 4,000,000*l.* sterling. They are excessive, and very unequally levied. The "octroi," or duty, on entering Paris, is twenty-one francs, or seventeen and sixpence the hectolitre, which is equal to the price of the wine itself. These exactions have occasioned much distress among the wine-growers, by diminishing consumption. It is a lamentable thing, when the home produce of a country is so burdened, that the most industrious cannot find a market for the reward of his labour, and poverty increases.

The labours of the vine-dresser are expensive; they are particularly so in places where some of the best wines are produced, as upon steep slopes and heights, where all the work of culture must be executed by hand, as the plough cannot be brought to act in such situations. The little farmers are compelled, from want of machinery, to do all their work themselves. In nothing is the smallness of capital more injurious than in wine growing, and in consequence a heavy taxation is proportionably detrimental. A wine-cask holding two hundred and twenty-eight litres of Sauterne, will lose about a twelfth annually by evaporation. If the farmer can afford larger casks, he will lose proportionably less wine. A very large cask of fifty-four hectolitres will only lose a twentieth from that cause. If the farmer can afford casks of one hundred and fifty hectolitres, only a hundredth part will be lost. This holds good in other things connected with the

wine manufacture, as well as in vine culture, and points out the true policy of the government, if it be not, like most governments, too obstinate to learn.

The persons who are concerned as wine cultivators in France are about 1,800,000; the wine sellers, 240,000.

The commerce of France in wine by sea is largest from the port of Bourdeaux. In 1824, the wines exported from thence amounted to 469,627 hectolitres. The port of the next consequence in the trade is Marseilles, which, in the same year, exported 189,643 hectolitres. The ports which follow are Montpellier, 180,158; and Toulon, 98,766. Cette exports largely, and Port Vendres also; the latter is situated close to the Pyrenees. The total exported by sea is about 1,081,655 hectolitres 15 litres. In 1785, the exportation from Bourdeaux was 100,000 pipes; in 1827, but 54,492. France exports about the 88th part of her wine produce.

In 1669 the importation of French wines into England was two-fifths of her consumption; yet in 1701 it was only 2051 tuns. From this quantity, the highest point until 1787, there was but one exception, namely, in 1713, when the quantity reached 2551 tuns. In 1725-32 the red wines of France were sold, according to quality, from 30*l.* to 40*l.* per tun; the white wines from 20*l.* to 25*l.* At the same time the brandies were from 6s. to 6s. 6d., which now bring from 4s. 6d. to 5s. 8d., rising higher, according to age. The latter, however, is the imperial against the old gallon. The amount gradually fell to 475 tuns in 1786, while the coarse brandied wines of Portugal rose from 7408 tuns in 1701, to 12,171 in 1785. In 1786 the duties were reduced to 50*l.* 16s. 6d. per tun, and French wine was at once imported to the extent of 2127 tuns, though the year before the quantity was only 475 tuns, which paid 99*l.* 8s. 9d. per tun. Since that period the average has been about two thousand tuns, though the duties were again raised, while wine from Portugal, the larger proportion of indifferent character, reached twenty thousand tuns. A treaty, which disgraced the good sense of the British government, and ensured the worst wine in Portugal for the English market, had been entered into for forcing down upon wine-drinkers such a produce, under the specious pretext of encouraging our woollen manufactures. Good sense

at length conquered prejudice, and put an end to the Methuen treaty.

Burgundy wines are imported into Great Britain in the hogshead of forty-nine gallons; those of Bourdeaux in the hogshead of fifty-two. The first qualities of French wine reach England in bottle.

The great depôt of wines exported *par terre*, as the French say, or from the districts of their growth for home consumption, is Paris. The trade is important. It is carried on in the Halle aux Vins, a circular building, one hundred and twenty feet in diameter. The high duties, in the shape of "octroi," are levied at the barriers. The cellars beneath the Halle aux Vins, Quai St. Bernard, on the banks of the Seine, will contain four hundred thousand casks. The building was begun by Napoleon, and is a convenient wine exchange, if it may be so denominated. The wine consumed by retail in France, in 1826, was, on a rough calculation, about 14,500,000 hectolitres. By going six feet outside the barriers of a town the wine may be drunk free of the "octroi" duty; hence the wine-shops so situated are much visited. The wine sold wholesale, for the most part to French families, was calculated, in 1826, at about four millions of hectolitres.

Wine in Paris is not, therefore, as cheap a commodity as it should be. A bottle of good Mâcon is not to be procured under from thirteen to fifteenpence. Good Champagne is charged five francs; Chambertin, Lafite, and similar wines, five, or even six francs, or more. The very inferior wines of Bourdeaux, or Burgundy, may be had at twelve sous, or sixpence sterling, but to an Englishman they are scarcely palatable. In Bourdeaux twice as much wine is drunk as in Paris, in proportion to the number of the inhabitants, because the duty on the wine there is not so much by one-half. A great deal of the wine consumed in Paris is not worth more than twelve shillings and sixpence the hectolitre, yet it is subject to a duty of seventeen shillings and sixpence! Thus, the duty upon wine for home consumption in the French capital is greater than the duty charged in this country on importation. A hogshead of the best Bourdeaux, or claret, bought on the spot, made up for the British market, being always a mixture, but of a good age, costs nearly fifty pounds,

the duty being sixteen pounds thirteen shillings and sixpence. In England the freight, carriage, bottles, profit of the home merchant, and other matters, swell the amount, but to the importer the best Bourdeaux wine may be had under this charge.

In 1829, it appears Bourdeaux sent to England 431,509 gallons, and Cette 39,796; while to the Netherlands Bourdeaux sent 2,515,193 gallons in the same year, and Cette 520,845.

The cultivation of the vine has increased in France very considerably during the last fifty years. In 1788, there were in vineyard 3,988,800 acres, and in 1829 nearly 5,104,800. The produce has increased in value in proportion. At present the vine-grower is borne down by fiscal rapacity, which limits home consumption, and by the prohibitions to the import of foreign articles in exchange for French produce. The blindness of the government is in this respect very surprising. The agriculturist is sorely pressed, for it is not his land alone which is taxed. At a time that the wines of France were estimated to be of the value of six hundred millions annually, upwards of one hundred and twenty millions were exacted in the shape of duties in one form or another, being a full fifth. So much evil has this caused, that an estate in the last century producing fifteen thousand francs, scarcely gives any return now. The cost of production is calculated at double the value of the rental, while in other agricultural produce it is only two-fifths of the rental. The following statement is from Dr. Bowring's report, and is, if correct, no very flattering picture of the state to which the government of France has reduced that valuable source of national wealth. It seems strange, if there be no mistake, that the vine should be cultivated at all. There is most assuredly an error somewhere.

The estate of Chollet, valued at 120,000 francs, gives Haut-Brion wine. The extent is about fifty-eight acres English.

	Francs.	Cts.
Cost of cultivation	14,067	15
Produce	7,000	0
	7,067	15
5 per cent. on 120,000 francs	6,000	0
Loss	13,067	15

This estate is the property of the Chamber of Peers, and, being a government concern, is no doubt managed without regard to expense, as crown lands too often are. Yet then the statement must be exaggerated. But that the revenues of the vineyards have been of late years falling off in the Bourdeaux district, there is no doubt, principally for want of a market. The cellars have been everywhere glutted, and the government is still deaf to applications for removing the prohibitions on trade with foreigners.

The wines of France, being the natural production of the climate, which England can never imitate, an exchange for the productions of the British soil, or for such manufactures as France cannot rival in excellence, or cheapness, placed upon a liberal basis, would be of great advantage to both countries, as well as to the constitutions and stomachs of Englishmen. It is to be wished that the wines of France were more generally drunk in this country, as they were from the earliest times down to the beginning of the eighteenth century. In 1387 Gascon wines and Rhenish were in high vogue. The best sold for twenty shillings the tun, though six years before they were at a hundred shillings. The coldness complained of in the varieties commonly introduced may be easily met by the importation of stronger kinds, the genuine growth of the vine, but pure in quality. The alcohol in wine combined in the natural way, when drunk in that state, is not productive of those complaints of the liver, and similar diseases, which arise from drinking brandied wines, in which the spirit is foreign. This is a remarkable fact. The union of the alcohol, mingled with the other ingredients of the wine by artificial means, is never perfect, and is beyond calculation more pernicious than the strongest natural product. The coldness even of the less spirituous French wines, only arises from the high state of stimulus in which English stomachs are customarily kept. From thence comes much of the misery of indigestion in this country. To one class of persons, it is true, and that unfortunately a large one, this recommendation is vain, namely, those to whose stomachs the use of alcohol, in its various forms, has been familiar.

Before closing this chapter, a list of various customary

French measures is subjoined, many of them fictitious or nominal; but as they may be met with hereafter, it will only be necessary to place them before the reader here, for the sake of explanation. They will be found more fully given at the close of the Appendix. In the wine districts they are now all resolved into hectolitres and litres, by which measures wine is universally sold, however the casks may vary in size. This is a useful regulation, and should be adopted in England, to prevent bottles of fourteen to the dozen being passed off as full measure. If a bottle of wine from the wood is demanded in Paris by the buyer, it is charged at the same price as the litre, which is one-third more; but if the purchaser ask for the litre, it must be given him without extra charge, though it will require an additional bottle to hold a part of it. The French, when they send to a wine-shop for their wine, always send two bottles, and demand a litre.

It must be premised, as already observed, that the names applied in various wine districts of France to the casks which they use, differ without reference to the measure; that in the department of the Marne, the *tonneau* is called the *queue*, and so on. By the new and excellent French system of measures, every measure, it must again be borne in mind, is resolved into litre and hectolitre.

The Litre is 61·0280264 English cubic inches, or 2·11353 English pints, or a quart is 0·9465 of a litre, while 3·7860 litres make an old English gallon.

The Hectolitre is 22·01 imperial, or 26·4 old English gallons, or 3·531714693 English cubic feet. The litre, then, is something more than the English quart, which, and the hectolitre of 26·4 old English gallons being recollected, the quantities of the provincial and the old measures may be easily comprehended.

The Lot of Lisle is 2·064 litres, or 0·545 gallons.

The Velte is, in some places, 2·017108 English gallons, or 7·60965 litres. At Bourdeaux it is 7·177 litres, 1·896 gallons; at Bayonne 7·390 litres, or 1·952 gallons. At Montpellier it is 7·609 litres. The old velte, also called septier, was 7·60965 litres, or 2·017108 gallons.

The Ohm used at Strasburgh is 46·093 litres, or 12·176 English gallons.

The Millerolle, at Marseilles, is 64·330 litres, or 16·990 English gallons.

The Asnée, at Lyons, is 82·549 litres, or 21,809 gallons.

The Quartaut, of Champagne, is 90 litres; in the old French measure 68·4868, or about 18 English gallons.

The Quart, in La Nievre, is 115 litres.

The Barrique, of Limoux, from 100 to 120 litres. The barrique, of Hermitage, 120 litres. Of Rochelle, 174·299 litres, or 46·039 gallons. Of Rouen, 195·648 litres, or 51·688 gallons. Of Bourdeaux, 228 litres. Of the Basses Pyrenees, three hectolitres.

A Piece of Champagne, of 160 litres, is only sold on the spot to traders, the wine being exported in bottles. A piece of Hermitage is 210 litres. In the department of the Gard, 185. In the department of the Seine, 228 litres. In Auvergne, 36 veltes. It is an indeterminate measure, from 27 to 100 veltes. In l'Yonne the piece is sometimes 28 veltes, or 213 litres.

A Botte is 426 litres.

The Bareille, of the Rhone, is 240 litres.

A Pipe is indeterminate; from 60 to 100 veltes, less or more, in different parts of France.

The Poinçon, of 236 litres, is used in the Loiret.

The Tonneau, of Bourdeaux, is a nominal measure, of 4 barrels, or 912 litres. The queue, in the department of the Marne, is the same as the tonneau. In Burgundy it is 60 veltes, or 456 litres, or about 114 English gallons. The old Tonneau de la Marine was 1438·2234 litres.

The Demi queue, in Burgundy, is 30 veltes, or 228 litres. In Châlons it is 220 litres.

The Quartier queue, in Burgundy, is 15 veltes, or 114 litres, or about 28½ gallons.

The Feuillette de Bourgogne is 15 veltes.

The Muid, in Burgundy, is 280 litres. In Languedoc, 700, or seven hectolitres.

The Demi Muid, like the muid, differs in different districts. In Roussillon and St. Gilles it is 45 veltes.

Foudres are the largest casks which are made, holding each from five thousand to fifteen, and some even thirty thousand litres.

Besides the separate measures in almost every department,

the French formerly enumerated the following, which are given merely to gratify the curious reader:

The Septier, the same as the velte above in some places, though more generally 7·60965 litres, about 2·017108 English gallons.

The Broc, 11·41447 litres.

The French Gallon, 3·8048 litres, or 1·008554 English gallons.

The Quarte, 1·9024 litres.

The Pinte, ·951206 litres, or ·2521385 English gallon.

The Chopine, called also the settier, ·475603 litres; also the half settier.

It will not be amiss here, for the benefit of the drinker of French wines, to mention several terms, employed by the dealers and connoisseurs in speaking of them.

Vin.—French for wine generally.

Bouquet is the aromatic smell which is perceived on drawing the cork of any of the finer wines, on their exposure to the air. In some of the better classes of French wine it is highly rich and odorous. It is not a single perfume, and is named *bouquet* from this circumstance. It seems to arise from a union of several agreeable odours, according to the opinion of the initiated.

Sève is applied to the taste of the wine the instant it is swallowed, composed both of the spirituous quality and aromatic odour united.

Aroma spiritueux intends nearly the same thing as *sève*, and both are acquired at uncertain ages of the wine. Infusions of different substances are sometimes used to impart these virtues.

Cru.—This word is applied several ways. It means a vineyard; a particular spot in a vineyard; any vine land generally.

Fumeux.—Wines quickly affecting the head from alcohol, not from carbonic gas, as Champagne. To the latter the term *montant* is applied.

Velouté.—Wine of good colour and body—soft upon the palate.

Cuvée.—The contents either of a cellar or vat at the vintage. It may consist either of one growth, or of several put together; in short, what we should call "a brew."

Vin bourru.—Thick, unfermented wine.
Event.—Flat wine; wine with a twang of deadness.
Pâteux.—Thick wine, adhering to the mouth.
Plat.—Wine without body or spirit.

Most of the other terms used furnish a key to their meaning from their obvious derivation, or may be found in any good dictionary.

[Spirits of Champagne.]

CHAPTER VI.

WINES OF FRANCE—(*Continued.*)

WINES OF THE DEPARTMENTS OF THE MARNE, HAUT-MARNE, ARDENNES, AND AUBE, COMPREHENDING THE ANCIENT PROVINCE OF CHAMPAGNE—WINES OF THE COTE D'OR, L'YONNE, AND SEINE AND LOIRE, COMPOSING ANCIENT BURGUNDY—WINES OF THE DRÔME, RHÔNE, AND VAUCLUSE, FORMERLY THE LYONNAIS, DAUPHINY, PROVENCE, ORANGE, AND LANGUEDOC—OF THE GIRONDE OR BORDELAIS—OF THE DEPARTMENTS OF THE DORDOGNE, VIENNE, NIEVRE, LOT, LOT ET GARONNE, MOSELLE, HAUT RHIN, BAS RHIN, &c.

The wines for which the ancient province of Champagne is celebrated, rank first in excellence among those of France. By forming France into departments, Champagne is now divided between the departments of the Ardennes, the Marne, the Aube, and the Haut-Marne. The wines produced there long disputed the palm of excellence with those of Burgundy. Gout had been attributed to their use by certain French phy-

sicians. The school of medicine entered, about 1652, into a warm discussion on the respective merits of the two species, and, though the public had settled the question long before, did not pronounce in favour of the wines of Champagne until 1778, about one hundred and twenty-eight years after the dispute commenced.

In 1328, Rheims wine bore a price of ten livres only, while Beaune fetched twenty-eight. In 1559, at the coronation of Francis II., Rheims wines were dearer than Burgundy; but the wines of the Lyonnais carried a still higher price. In 1561 these wines had risen in price. In 1571 they were nearly eight times increased beyond their former value. Champagne reached its present perfection and estimation about 1610, at the coronation of Louis XIII. The oldest anecdote which the French possess relative to the excellence of Rheims wine, dates as far back as 1397, when Vincesilaus, King of Bohemia and the Romans, on coming to France to negotiate a treaty with Charles VI., arrived at Rheims, and having tasted the wine of Champagne, it is to be presumed for the first time, spun out his diplomatic errand to the longest possible moment, and then gave up all that was required of him, in order to prolong his stay, getting drunk on Champagne daily before dinner. It is said that Francis I. of France, Pope Leo X., Charles V. of Spain, and Henry VIII. of England, had each of them a vineyard at Ay, their own property, and on each vineyard a small house occupied by a superintendant. Thus the genuine article was secured by each sovereign for his own table. If this be true, it shows pretty accurately the length of time that Champagne wine has been in esteem. The vineyards on the banks of the Marne are those which possess the highest character, producing most of the wine known by the general term of Champagne in other countries. The wines are divided into those of the river and of the mountain, the former being for the most part white. In a climate so far north, these and other French wines bear remarkable evidence of human industry. In the South, Nature does everything, and man is idle. In the North, man is the diligent cultivator, and he is rewarded in the deserved superiority of his produce and the estimation it justly holds.

Champagne wines are further divided into sparkling (*mous-*

seux), demi-sparkling (*crêmans* or *demi-mousseux*), and still wines (*non mousseux*). Some are white or straw-colour, others grey, others rose-colour, and some are red. They are of a light quality in spirit, the average of alcohol in Champagne wine in general, according to Mr. Brande, being but 12·61 per cent.

The entire quantity of wine made in Champagne of all kinds varies with the season; but the average may be taken at 1,560,687 hectolitres, or 40,968,033¾ gallons, from 55,540 hectares, or 138,870 acres of vines.* The department of the Marne is that in which the most famous of these wines are made. There are 19,066 hectares of land devoted to the vine in the department, though some say above 20,000, and of this number 110 are situated in the arrondissement of Châlons sur Marne; 6856 in that of Epernay; 425 in that of St. Menehould; 9029 in that of Rheims; and 2646 in that of Vitry sur Marne. The quantity of wine made in the whole department is 422,487 hectolitres, and the value about 11,235,397 francs; of this sum nearly four-fifths in value are made in the arrondissements of Epernay and Rheims. Each hectare gives from 28 to 30 hectolitres. The produce has increased of late years from the improved mode of cultivation. The quantity exported from the department is of the best kind, and amounts to about 103,043 hectolitres annually; the residue is distilled or consumed by the inhabitants. The best red wines are sold in Belgium and the Rhenish provinces. The Sillery goes to Paris and to England, and the sparkling wines, not only over France, but the entire civilised world. For England this wine is made more spirituous than that for export to other countries, and it is valued here in proportion to its extreme effervescence in place of the contrary, which, as all judges of the wine allow, is best recommendatory of it. That which gently sends up the gas in sparkles is to be preferred, and the finest of all is the still *vin*

* The vintage of 1834, which was large and good, gave for Verzenay 3000 casks; Verzy and Villers-Marmery, 1500; Rilly, Chigny, and Ludes, 1000; Bouzy 1000, Ambonnay 1000, Ay 10,000, Mareuil and Aœnay 3000; Haut-Villiers, Dizy, and Cumières, 4000; Epernay 4000, Pierry 4000, Moussy 2500, Chouilly 1500, Cramant 2000, Avize 8000, Oger and Mènil 16,000, Vertus 2000, —total 64,500 casks, containing 220 bottles each; making in quantity 14,190,000 bottles. According to the estimate of the number of bottles which could be procured, it appeared that when this vintage came to be bottled, there would be a great deficiency.

du roi. None should be purchased in France which does not cost three francs to the merchant on the spot. That of less price is good for little. The French merchants of Paris and Meaux take nearly all the wine grown in the arrondissement of Epernay.

The vintage of 1832 gave 480,000 hectolitres, viz., 50,000 in white sparkling or still, 310,000 common red of middling quality, and 120,000 choice red.

The annual consumption of Champagne wine in France was estimated at 626,000 bottles in 1836, but the quantity was thought to be on the decline. The export was then reported to be, to England and the East Indies, 467,000 bottles; Germany, 479,000; United States of America, 400,000; Russia, 280,000; and Sweden and Denmark, 30,000.

The mean price in the arrondissements of Châlons, St. Menehould, and Vitry, which are inferior kinds, is about sixteen francs the hectolitre; those of Vitry bring twenty francs; St. Menehould fifteen; and Châlons about twelve.

Though in England most people understand by Champagne only wine which effervesces, this, as we have seen, is an error. There are many kinds of Champagne wine, but the best are those which froth slightly. They are improved in the drinking by ice, which tends to repress the effervescence; the Sillery has no sparkle at all. Every connoisseur in Champagne will select wine of moderate effervescence, and such wine always carries the best price. When the glass is entirely filled with froth, on pouring out the contents of the bottle, the better qualities of the wine and spirit evaporate. The quantity of spirit in Champagne, as we have seen, is but small, and the residue is a flat meagre fluid.

There is an exquisite delicacy about the wines of Champagne, which is more sensible to the foreigner than that which distinguishes the richest kind of Burgundy to the taste of the French amateur. The French have terms for distinguishing different qualities in their wines, some of which cannot be translated; but the term "delicate" or "fine," as applied to the wines of Champagne, the peculiar "aroma," which remains in the mouth after tasting them, together with the "bouquet," which is understood alone of the perfume, applying to the sense of smell, are terms pretty intelligible to Englishmen, who are drinkers of French wines.

It is on the banks of the Marne that the best effervescing wines are made, or, to follow the French designation, in "the vineyards of the river." We have already noted the general divisions of river and mountain wines, which are of some antiquity in characterising the wines of this part of France. The French further divide this district, or vine-ground of Rheims, into four general divisions, namely, the river vineyard district, that of the mountain of Rheims, that of the estate of St. Thierry, and that of the valleys of Norrois and Tardenois. There are, moreover, one or two other spots which do not come into these divisions; one of them is on the side of a hill north-east of Rheims.

The river district is situated on a calcareous declivity, open to the south, at the foot of which runs the Marne, from Bisseuil to the borders of the department of the Aisne. The chalk abounds here mingled with stones in the uppermost soil. The vines are as closely planted as possible. On this declivity comes first in order the vine-ground of Ay, which produces on an average, year by year, about 4320 hectolitres of red wine, valued at sixty francs the hectolitre, and 3392 hectolitres of white wine, at one hundred and thirty; also the vineyards of Marcuil and Dizy, yielding 3220 hectolitres of red, at forty francs, and 1970 of white wine, at one hundred and ten. These are the districts which produce Champagne wines of the very first quality known. They are light and delicate, vinous, of the most agreeable taste, and preserve to a great age their virtues and effervescence. When these wines are destitute of the sparkling quality, they rival those of Sillery, as still Champagne, and are frequently preferred to Sillery, because they are lighter and more luscious. The red wines of this quarter also keep well. It yet remains to account for certain differences in wine of adjoining vineyards met with here, with apparently the same soil and exposure.

The next vine lands of this district in rank are those of Cumières and Hautvilliers, which yield about 7130 hectolitres of red wine of the second quality, at fifty francs. Hautvilliers was the spot where Father Perignon, a Benedictine, first introduced the mixing grapes of different qualities in making these wines. This wine resembles that of the hilly district of Rheims in lightness and delicacy, but

will not keep to so great an age. In warm seasons it reaches maturity the first year. Formerly white wine made at Hautvilliers rivalled that of Ay, but of late the manufacture has ceased, in consequence of the division of the property on which the wines were produced; the greater part of the vine lands which grew the finest qualities having got into the hands of wine-makers who have changed the character of the vines. That of a spot called *la Côte-à-bras* has still a reputation. Some proprietors there who have preserved the old kind of vine still make an excellent white wine. All the other wines of the river are common, and fetch in the market, on the average, only from twenty-five to forty francs.

The mountain or hilly district of Rheims is at the back of the preceding acclivity, and its slope is much less steep than that towards the river. The soil is of the same calcareous description. The prices, however, differ with the reputation of the vineyards. The aspect is east and north. The first vine lands are those of Bouzy and Ambonnay, producing 2100 hectolitres, either of red or white wine at pleasure, at about one hundred and fifty francs the hectolitre. Next come the vineyards of Verzenay, Sillery, Mailly, and Verzy, producing 2832 hectolitres of the same kind of wines, at one hundred and thirty francs.

It is here that the best red wines of Champagne are produced. They have good body, are spirituous, fine, and keep their qualities to an advanced age. The red wines of Bouzy approach in bouquet the best wines of Burgundy.

It is from this district that the exquisite white still Champagne, called Sillery, is produced. The vineyard is not more than fifty arpents in extent, yielding six casks of two hundred and ten bottles each arpent. The hill on which it stands has an eastern aspect. This wine has more body, is more spirituous than any other white Champagne wine, and is distinguished by a dry and agreeable taste. It is grown principally on the lands of Verzenay and Mailly, of the blackest grape, of which also the grey bright wine, having the complexion of crystal, is made. It is to be lamented that of late, owing to the changes of property there, they have planted white grapes, that make a very inferior wine, which will not keep half as long. The name of Sillery was given to the wine from that of the soil; after a marquis who

improved it, the wine was also styled *vin de la Maréchale.* Very little is now produced in the commune of Sillery, which covers a considerable space of ground. The grape is subjected for making this wine to a less pressure than for red wine, and it is kept longer in wood than the other sorts generally are, or about three years. The quantity made differs every year, according to the orders received for it. It is chiefly manufactured for the wine merchants, who buy the proper grape from the proprietors of the vineyards, in proportion to the demand made on them for export. It is, perhaps, the most durable, as well as wholesome to drink of all the wines of Champagne, the fermentation being more perfect than that of any other species.

The second class of wines is generally valued at fifty francs, while there are others, such as those of Ville Dommange, which are only worth from twenty-five to thirty francs the hectolitre on the spot. They are made from the vineyards of Ambonnay, Ludes, Chigny, Rilly, Villers-Allerand, and Trois-Puits, and in quantity produce about 9408 hectolitres. These wines are some of them of tolerable quality, and are mostly sold to foreigners. The rest of the wines of the mountain district are ordinary wines, bringing only from thirty to forty francs the hectolitre, and some only fifteen and twenty.

The third Champagne district, or that of St. Thierry, produces 6592 hectolitres of delicate wines, bearing prices from thirty to sixty francs, and some ordinary sorts as low as twenty.

The fourth district, namely, the valleys of Norrois and Tardenois, as well as that of the hill side near Rheims, produces only common red wines, the best of which sell from twenty-five to thirty francs the hectolitre.

In all the distinguished vineyards of Champagne, as, for example, in the river district of Ay, Mareuil, Dizy, Hautvilliers, and Cumières; and at Bouzy, Verzy, Verzenay, Mailly, in the mountain, as well as in many other of the vine lands, they cultivate the black grape, which is called the "golden plant" *(plant dorè)*, being a variety of the vine called *pinet* and red and white *pineau.* Crescenzio, who wrote in the thirteenth century, speaks of a vine near Milan, called *pignolus*, which was probably of the same species,

especially as an ordinance of the Louvre, of the date of 1394, places the *pinoz*, as then called, above all the common species of vine. The product of the white grape produces a very inferior wine to that from the foregoing fruit. It seems at first singular that the blackest grape should produce wine of the purest white colour, grey, or straw; but such is, nevertheless, the fact. The price of the vine land differs much. It is greatly subdivided; there are vineyards not exceeding the tenth of an arpent in size. Some productive land will not bring forty pounds per acre English on sale, while spots have been known to sell for eight hundred, which have yielded seven hundred and fifty bottles the acre. The expenses of cultivation at Ay, a small town on the right bank of the Marne, a little above Epernay, remarkable for the delicacy of its wines, are from 600 francs to 900 francs per hectare. The selling price of vineyards averages about 5000 francs,—the highest has been 24,000: the lowest 2500 francs. These wines are grown in a southern exposure upon a range of chalk hills, on the mid elevation of which the best vines are produced. The number of vine proprietors in the arrondissement of Rheims is 11,903; for the whole department they are not less than 22,500. The produce may average in the districts most noted from 440 to about 540 gallons English, per acre, sometimes producing 660. But it is well known that certain spots in this department have given 1000 gallons the English acre.

The still wines of Epernay, both red and white, are inferior to those which are made on the lands of Rheims. The best red wines of Epernay are those of Mardeuil, at the gates of Epernay, those of Damery, Vertus, Monthelon, Cuis, Mancy, Chavost, Moussy, Vinay, and St. Martin d'Ablois. They fetch only middling prices, from forty to sixty francs the hectolitre. The wines of Fleury, Venteuil, Vauciennes, and Boursault, on the Marne, are only to be classed as ordinary wines of the district. Those of Œuilly, Mareuil le Port, Leuvrigny, Crossy, Verneuil, and the canton of Dormans, rank as common wines from twenty-two to thirty francs on the spot. Among the lands where white wines are produced, the vineyard of Pierry, in the neighbourhood of Epernay, is most esteemed. It is dry, spirituous, and will keep longer than any of the other kinds. Varying from one

hundred and fifty to twenty francs, the differences in the wines may be easily conjectured.

At Epernay, where the black grape is most cultivated, there are lands which produce wine approaching that of Ay in delicacy, in the abundance of the saccharine principle, and in the fragrance of the bouquet. Though customarily arranged after the wine of Pierry, it may fairly be classed on an equality. The wines from the white grape of Cramant, Avize, Oger, and Ménil, are characterised by their sweetness and liveliness, as well as by the lightness of their effervescence. To a still class, put into bottles when about ten or eleven months old, they give the name of *ptisannes* of Champagne, much recommended by physicians as aperient and diuretic. The grounds of Chouilly, Cuis, Moussey, Vinay, St. Martin d'Ablois, and Grauve, as well as those of Monthelon, Mancy, and Molins, produce wine used in the fabrication of sparkling Champagne, being fit for that purpose alone.

It is proper to explain that the wines are put into casks of one hundred and eighty litres each. But white wines of Champagne are not intended for consumption at these prices in the piece; it is only to be understood of such wines as are thus preserved by the merchants at Epernay and Rheims, when, during the vintage, or for three months after, they wish to hold the stock of the growers, which it is not convenient at the moment for them to bottle, as it is the general custom among the wine makers to take upon themselves the expense and trouble of bottling. Thus they are enabled to dispose of a small quantity at once, if demanded, and can still wait to the end of the first year for ascertaining the whole of their stock. They suffer the less by breakage, leakage, and filling up of the bottles, and obtain a portion of the profit at once from the immediate sale of a part of their stock to the merchant. The price of a bottle of Champagne paid by the consumer, either in France or abroad, varies more according to the scarcity or abundance of the crop, and the agreement with the seller, than the difference of the quality at the place of growth. The following prices will give an idea of these variations.

The wine of Pierry and Epernay, in a plentiful year, sells from one hundred and thirty to one hundred and fifty francs;

in a medium year, from one hundred and eighty to two hundred; in a year of scarcity, from two hundred to two hundred and fifty the piece.

Those of Cramant, Avize, Oger, Ménil, from eighty to one hundred; and from one hundred to two hundred.

Those of Chouilly from sixty to a hundred and fifty francs under such circumstances.

Those of Moussy, Vinay, St. Martin d'Ablois, Cuis, Grauve, Monthelon, Mancy, and Molins, from fifty to sixty; sixty to eighty; or eighty to a hundred.

Sold in bottles by the grower to the merchant in gross; the waste not replaced, and bottles not filled up, 1f. 25c.; 1f. 50c.; 2f. to 2f. 50c; in medium years, 1f. 30c., 2f., and 2f. 50c.; in years of scarcity, 2f., 2f. 50c. to 3f. The bottles filled, and no waste in abundant years, 1f. 50c.; 1f. 75c.; 1f. 75c.; 2f. 25c.; 2f. 75c. In years of average product, 1f. 75c.; 2f. 25c.; 2f. 75c. In years of scarcity, 2f. 25c.; 2f. 75c.; 3f.

In bottles sold by the merchant to the consumer in years of abundance, 2f.; 2f. 50c.; 3f.; medium years, 3f. 50c.; years of scarcity, 3f. 50c.; 4f. 50c.; 6f. From 3f. to 3f. 50c. is the average for good quality. Some class the qualities :— The *first*, from 3f. to 4f.; the *second*, from 2f. 50c. to 3f.; the *third*, from 2f. to 2f. 50c. From ten to twenty per cent. fluctuation in price is not common. England and her colonies consume this wine largely. The annual exportation is about 2,690,000 bottles, with an increasing demand.

In 1818 there were effervescing wines sold at from one franc twenty-five cents, to one franc fifty cents, after the first month of bottling; but this makes nothing against the foregoing prices. These wines were of a very inferior quality, and being sweetened or seasoned with sugar and spirit, could only answer for instant consumption. Such wines are neither sound nor wholesome, and it is probable are the same that the advertising wine quacks of London puff off by advertisements as the best Champagne. Those who have any regard for their organs of digestion, should avoid them as poison; for though good Champagne is one of the wholesomest wines, the bad is more than commonly pernicious.

Some of the more respectable growers and merchants never keep any Champagne but of the best quality, and never sell

under three francs, let the season be as abundant as it may. These are the best persons of whom to buy. They have always the finest stock, and after encountering the first year's loss by breakage, they have a certain property in their cellars, which covers the return of bad seasons.

The best red wines of Epernay are fit for consumption the second year. They gain little by being kept above two years in the wood, but in bottle they lose nothing of their good qualities for six or seven.

The wines of Champagne, whether still or effervescing, white, grey, or rose, whether solely of black or white grapes, or of both mingled, are generally in perfection the third year of bottling. The best wines, however, gain rather than lose in delicacy for ten, and even twenty years, and are often found good at the age of thirty or forty.

It will not now be amiss to give a cursory view of the mode in which the effervescing wines of Champagne are made. By this means some idea may be formed of the care required in bringing them to a perfection, which has aided in placing them beyond all rivalry.

The vine crop designed for the manufacture of white Champagne is gathered with the greatest care possible. The grapes for the purest wines consist only of those from an approved species of vine. Every grape which has not acquired a perfect maturity; every rotten grape, or touched with the frost, or pricked, is rejected. In gathering, or in emptying the baskets, and in the carriage to the press, every motion that can injure the fruit is avoided, as well as the sun's action. On arriving at the press, the baskets, or whatever the grapes are carried upon, are placed in the shade in a cool spot. When the quantity is sufficient for a pressing, they are heaped with as little motion as possible upon the press, and the bunches are very carefully arranged.

The must is not immediately casked, but is placed in a vat, where it remains for six, ten, or fifteen hours, that the dregs may deposit. When it begins to ferment, it is immediately transferred to the cask.

Perhaps there are none of the productions of the soil which require more care than the grape, to make it produce the delicious wines in perfection. In no country is the art of making wine so well understood as in France, and being a

commodity which it is impossible to equal, except in a soil and temperature of exactly the same character, it is improbable that country will be excelled by any other in her staple product. An advantage of no slight moment, when compared to those of her manufactures which time may enable foreigners to equal, and in many cases to surpass. The following is an account of the process of bottling, and the treatment of the wines, of Champagne, before they are ready for the market.

About Christmas, after the vintage, the fermentation being complete, the wine is racked. This is always done in dry weather; and, if possible, during frost. A month after it is racked a second time, and fined with isinglass. Before it is bottled it undergoes a third racking, and a second fining. There are some makers of wine who only fine it once after the second racking, and immediately bottle it, taking care that it has been well fined in the cask. Others rack it twice, but fine it at each racking. The best wines are always able to bear three rackings and two finings; and the benefit of such repetitions is found of the utmost importance afterwards in managing the wine when bottled.

The wine which is designed to effervesce, and the *ptisannes* and wines of the third pressing, are racked and fined in March and April in the cellar, out of which they are only taken in bottles. That which is designed to be still wine is not bottled at Epernay until autumn, and is taken to the underground cellar in April or May. This is not the practice at Rheims with the Sillery. It has been found there the most advantageous plan to bottle the wine in the month of January, though at the risk of its imbibing the sparkling quality. In this case, and forthwith after the first racking, which is called *debourbage*, it is fined, and drawn off in ten or twelve days. Still wines are found by this means to be much improved in character.

The great complaint against Champagne wine has been, that it cannot be obtained of an uniform quality. This is principally owing to its being put into small casks. The wine in every cask will not be alike, as the minutest difference in the operation of preparing it for the market will alter the quality. To remedy this evil, so justly complained of, Mumm, Geisler and Co., at Rheims, provided tuns holding twelve thousand litres each, which they imported from the Palati-

nate, and they found it a mode that fully obviated the evil.*

The strength of the bottles and their uniform thickness, for the sparkling wines, are most carefully ascertained. Every bottle with an air-bubble in the glass, or with too long or too narrow a neck, or with the least malformation—in short, with anything which may be supposed to affect the production or retention of the effervescence, is put by for the red wine. The bottles, too, are jingled together in pairs, one against the other, and those which crack, or break, are carried in account against the maker.

Some idea of the quantity of effervescing wine made in the department of the Marne, in the arrondissement of Epernay alone, is obtained from the fact, that no less than thirty-three thousand hectolitres, or eight hundred and sixty-six thousand gallons, have been manufactured in one year. A third was purchased by the merchants of Rheims, and at least as much more has been made in one year in this last arrondissement.

In the month of March or April, after the wine designed for effervescence is made, it is put into bottle. Some begin as early as February, at the risk of exposing the wine to failure, or the bottles to more extended breakage in case they succeed. Fifteen per cent. is a common loss. Sometimes it reaches much higher.

The effervescence is owing to the carbonic acid gas, pro-

* The following extract of a letter from Cologne to the writer will more fully explain the experiment:—"I venture to submit the new mode which has been adopted by an establishment at Rheims for getting wines of an *uniform* quality, the want of which used to be a constant, and, I may add, a very just complaint. Most of the wine-merchants at Rheims and Epernay put their wines into small casks, or pieces of 160 litres each, and the wine had to undergo in them all the various operations mentioned in your first edition. It is very evident, then, that it is almost impossible to have an uniform wine; each cask must and will be different. Besides, wine never will develop itself so well in a small vessel as it will in a large one. In order to remedy this, it was thought a good plan to get some large Rheingau tuns, of about 12,000 litres each, into which the new wines were put; and it was surprising to see the difference. The wine not only developed itself far better than it used to do in the smaller casks, but the process of fermentation and all the other operations went off beyond expectation, and the great object to have a wine of an uniform quality was thus most satisfactorily obtained. This new mode has not been adopted generally yet; the great expense of the tuns, which must be got from the Palatinate, has deterred others from adopting it; but the advantages are so great, that there is no doubt it will be very soon followed by every other house. Meanwhile, I believe that this is the only firm at Rheims which makes use of those immense tuns, and which thus can be sure of having in all respects an uniform wine."

duced in the process of fermentation. This gas being resisted in the fermentation of the white wine, scarcely begins to develop itself in the cask, but is very quickly reproduced in bottle. In this process the saccharine and tartarons principles are decomposed. If the latter principle predominate, the wine effervesces strongly, but is weak. If the saccharine principle be considerable, and the alcohol found in sufficient qnantity to limit its decomposition, the quality is good. The wines do not effervesce in uniform times. Some will do it after being in bottle fifteen days; others will demand as many months. One wine will require a change of temperature, and mnst be bronght from the underground cellar to another on the surface; a third will not exhibit the desired quality until August. One kind, when patience is exhausted, and the effervescence so long expected is given up, will give it all of a sudden. Another wine standing nntil the following year without this action, must then be mingled with the product of a new vineyard, which is known to abound in the effervescing principle, snch as that of the white grapes of Avize. The effervescence of the Champagne wine, considered in all its bearings, is most uncertain and changeable, even in the hands of those best acquainted, through experience, with its management. The difference of the spot of growth; the mixture; the process, more or less careful, in the making; the casking and preservation in the wood; the glass of the bottles; the aspect of the cellars; the number and direction of the air-holes; the greater or less depth, and the soil in which the cellars are situated—all have a varied and often an inexplicable influence on the phenomena of effervescence.

It will not be amiss to follow up the snbject further in its details, in order that the reader may judge of the attention necessary in an operation, to a stranger, apparently the least important relative to the manufacture of this delicious wine.

The bottles must be new, having been some days preceding rinsed twice in a large quantity of water, and shotted. Five workmen are required to manage them in what is called the workshop, or *atelier*.

The barrel heads are bored, and a little brass pipe inserted in them with a fine gauze strainer, to prevent the smallest substance from passing. The bottles are filled so as to allow about two inches' space between the wine and the cork.

This space diminishes during the time the gas is forming; and in those bottles which burst, it appears that the void is filled up entirely by the expansion of the liquid.

The workman whose duty it is to fill the bottles, passes them by his right side to the principal operator, who sits on a stool, having before him a little table, covered with sheet lead, and not higher than his knees. He takes the bottle, inspects the allowance left between the wine and the place the cork will occupy, regulates it very nicely, chooses a cork, moistens it, introduces it into the bottle, and strikes it forcibly two or three times with a wooden mallet, so smartly that it would almost be thought the bottle must be broken by the violence of the blows, but fracture is rare in the hands of an experienced workman, who has paid attention to placing his bottle solidly, and resting it with a perfectly even pressure upon its bottom.

The bottle, thus corked, is passed again by the right-hand to another workman, seated in the same manner as the foregoing, who crosses it with packthread, very strongly tied, and then hands it over to a fourth, who has a pincers and wire by him; he wires it, twists and cuts the wire, and gives it to a youth, who places the bottles on their bottoms in the form of a regular parallelogram, so that they can be counted in a moment. The daily labour for a workshop is calculated at eight casks, of one hundred and eighty litres each, or a drawing of sixteen or seventeen hundred bottles. M. Moët, of Epernay, who deals in the bottled wine, has constantly from five to six hundred thousand bottles in store, and sometimes no less than ten of his workshops are in full employ.

The cellars of M. Moët, at Epernay, are in the limestone rock, and of immense extent. The piles of bottles render it a labyrinth. They rise to the height of six feet.

The bottles are arranged in heaps (*en tas*) in the lower cellars. They are carried down by means of baskets, which enclose each twenty-five ozier cases for the bottles. Two workmen, by means of leather belts drawn through the handles, transport them. The heap or pile runs along the wall of the cellar, most commonly for its entire length. Among the wholesale merchants slopes are prepared in cement for the piles, having gutters to carry off the wine from the broken bottles, and also reservoirs to collect it.

The bottles are arranged horizontally, one against the other. The lowest row has the necks turned to the wall; and the bottles placed upon laths. The bottles thus situated indicate the vacant space left between the wine and the cork, just at the spot where the bend of the bottle takes place to form the neck, by which the diminution in the void space is easily seen. Small wedges secure the first range of bottles, and upon them a second range is placed the other way, or with the bottoms of the bottles towards the wall. All the rows are placed on laths, the corks of one row one way, and the other the reverse. The piles of bottles are thus arranged nearly in the same manner as in English bins, but are carried to the height of five or six feet. This they call in France to heap them *(mettre en tas ou entreiller)*.

The pile is very solid, and any of the bottles with the necks to the wall can be withdrawn at pleasure, by which means they can be examined, to observe if they are "up," as it is termed in England. If not, they must be got into that state, let the expense amount to what it may. A bottle drawn from the heap to examine if it be in a proper state, is held horizontally, when a deposition is observed, which the workmen call the *griffe*, or claw, from its branching appearance. The indication of a bottle's breaking is the disappearance of the vacancy below the cork before spoken of, by the expansion of the carbonic acid gas. It is generally in July and August that this breakage happens, and that considerable loss ensues. In ordinary cases, indeed, from four to ten per cent. is the amount. Sometimes, however, it amounts to thirty and forty per cent. It is very remarkable, too, such is the uncertainty of the process, that of two piles in the same part of the cellar, of the very same wine, not a bottle shall be left of one, while the other remains without effervescence at all. A current of fresh air will frequently make the wine develop its effervescence furiously. The proprietor of the wines is every year placed in the alternative of suffering great loss by breakage, or is put to great expense in making wine effervesce that will not naturally develop itself. Of the two evils he prefers submitting to breakage from too great effervescence, rather than being put to the trouble and expense of correcting the inertness of the liquid. If the breakage be not more than eight or ten per cent., the owner

does not trouble himself further about it. If it become more serious, he has the pile taken down, and the bottles placed upright on their bottoms for a time, which is longer or shorter, as he judges most advisable. This makes the quality of one bottle of wine somewhat different from another. Sometimes he removes it into a deeper cellar, or finally uncorks it, to disengage the overabundant gas, and to re-establish the void under the cork. This last operation is naturally expensive. It happens that when the gas develops itself with furious rapidity, the wine is wasted in large quantities, and it is difficult to save any portion of it. Even that which is least deteriorated is of bad quality. The piles, as before observed, are longitudinal, and are parallel to each other with a very small space between each pile. The daily breakage, before it reaches its fullest extent, will be in one day perhaps five bottles, another ten, the next fifteen. Those piles which may have the smallest number broken, still fly day by day among the mass, and scatter their contents upon the sound bottles. Sometimes a fragment of a bottle is left, which contains a good proportion of its contents. In a short time this becomes acid from fermentation, and finally putrid; during the continuance of the breakage, the broken bottles which lie higher in the pile mingle their contents with what is spoiled, resting in the fragments beneath. The overflow runs together into gutters in the floor. When there are many of these accidents the air of the cellar becomes foul, and charged with new principles of fermentation, which tend to increase the loss. Some merchants throw water over the piles of bottles two or three times a week during the period of breakage to correct the evil. The workmen are obliged to enter the cellars with wire masks, to guard against the fragments of glass when the breakage is frequent, as in the month of August, when the fragments are often projected with considerable force.

The breakage ceases in the month of September, and in October they "lift the pile," as they style it, which is done simply by taking the bottles down, one and one, putting aside the broken ones, and setting on their bottoms those which appear, in spite of the cork and sealing, which are entire, to have stirred a little, upon examining the vacant space in the neck. Bottles are sometimes found in this state to

have diminished in quantity to the amount of one-half by evaporation. This loss must be replaced. In the other bottles there is observed a deposition which it is necessary to remove. For this latter purpose, the bottles are first placed in an inclined position of about 25°, and, without removing them, a shake is given to each twice or thrice a day, to detach the sediment. Planks, having holes in them for the necks of the bottles, are placed in the cellar to receive them, thus slopingly, three or four thousand together. For ten or fifteen days they are submitted to the before-mentioned agitation, which is managed by the workmen with some dexterity, so as to place all the deposition in the neck next to the cork, and leave the wine perfectly limpid. Each bottle is then taken by the bottom, kept carefully in its reversed position, and the wire and twine being broken, the bottle resting between the workman's knees, the cork is dexterously withdrawn, so as to admit an explosion of the gas, which carries the deposition with it. An index is then introduced into the bottle, to measure the height to which the wine should ascend, and the deficiency is immediately made good with wine that has before undergone a similar operation. As it was by no means an easy task to do this, from the evaporation of the gas, while the bottle was open, an instrment has been invented, and is everywhere used for the purpose, which it is not necessary to describe here. The bottle is then a second time corked and wired.

The wine is now ready to be sent away by the maker. The bottles are arranged in a pile as before; but if they remain any time longer in the cellar they are uncorked, and submitted to a second disengagement (*degagement**) of the deposition, and sometimes to a third, for it is a strict rule never to send Champagne out of the maker's hand without such an operation, about fifteen days preceding its removal. If this were not done, the deposit would affect the clearness of the wine in the act of transporting it. Thus the process, to the last moment the wine remains in the maker's hands, is troublesome and expensive. Sometimes, too, in the second year of

* This operation is called *degorgement* in some works on wine. *Degagement* means freeing, and is more scientific in application:—*degorgement* means clearing a pipe stopped up to an overflow. *Degagement* is the French word, signifying to disengage or free, and is here scientifically applied.

its age, the wine will break the bottles, though such breakage will be very limited, it generally remaining tolerably quiet.

The non-effervescing wines, if they are of the white species, are all submitted to the operation of uncorking and clearing at least once before being sent out of the maker's hand.

The white wines of Champagne do not admit of being mixed with any but those of their own growth. The wines of Ay are sometimes mingled with those of Cramant, Avize, Oger, and Ménil, to produce the gas more favourably; and the makers in those places have recourse to that of Ay for a similar purpose, from its abounding in the saccharine principle. When mixtures take place in some districts they are made simply to meet the taste of the consumer. Wine which would please a Parisian palate would not be drank at Frankfort. These mixtures are called assortments. They take place in the first making of the wine by purchases from other growths; it is done very soon after the wine is made. For the purpose of bringing wine to perfection this way, many makers have in their cellars vats, denominated *foudres*, which will contain from thirty to one hundred hectolitres each.

Mixtures are not often made of the effervescing wines. They generally remain the pure production of the spots the names of which they bear.

The red wines are differently assorted. The maker often mingles the productions of his best vines together. The dealer in white wines, who happens to be the proprietor of vineyards, buys red wines of the third class, strong in colour and pure in taste, which he mingles with his wines of the fourth and fifth of his white pressings, thus ameliorating them. Experience teaches the maker of red wines, two or three years in wood and weak in quality, that it is a useful custom to mingle with each piece ten or twelve litres of very generous wine from the South, which improves them, and adds to their body.

The grey Champagne wine is obtained by treading the grapes for a quarter of an hour before they are submitted to the press. A rose-coloured wine is obtained by continuing this process a longer period; but in the arrondissement of Rheims, the rose-coloured wines are only wines of the second quality, lightly tinged with a small quantity of very strong red wine, or with a few drops of a liquor made at Fismes,

from elderberries. It is needless to say, that both the taste and quality of the wine are injured by this mixture. Indeed, no one who knows what the wines are at all, would drink rose-coloured Champagne if he could obtain the other kinds.

In Haut-Marne, a rose-coloured wine is made called *tocanne* in the country. The must is racked after being twenty-four hours in the vat. White wine is also made there with the red grape, which is pressed without treading, and the murk thrown into the vat. The *pineau* plant is used. The wine made at Montsaugeon will keep many years in bottle. The price of the best kind is thirty-five francs the hectolitre.

The red wines of Champagne are little known in England. Verzy, Verzenay, Mailly, and St. Basle, near Rheims, produce what are called the mountain wines. They are of excellent quality, and the wines of Bouzy in particular are distinguished by great delicacy of flavour. The red wine of the Clos de St. Thierry, a league from Rheims, is of a quality between Burgundy and Champagne, and is very highly esteemed by the connoisseur. The price is from thirty to sixty francs the hectolitre. Aubigny produces a delicate red wine, and Montsaugeon a red wine which keeps well for forty years, though of a very delicate quality.

The department of Aisne, part of ancient Picardy, produces 271,717 hectolitres of wine, both red and white, at about thirty-two francs. Of these wines the most distinguished are those of Chateau-Thierry, which are white, and are a good part of them bought by the merchants of Epernay, who, after mixing them, sell them as Champagne. These wines are delicate, but they want body. Those of Essone and Azy bring twenty francs the hectolitre. The red wines are consumed in the department, or sent to Paris. Sugar has been mixed with some of the wines here in a small proportion, and found to improve them. M. Sarrazin, of Verdilly, by putting three or four pounds of sugar to each piece of his wine, of two hectolitres, nearly doubled their selling value. This is easily accounted for; the grape, from the northern temperature of the department, affords less saccharine matter than a stronger sun gives in more southern situations. The quantity of wine given out by the vine here

is great. At Soissons it is said to be no less than forty-five hectolitres per hectare, or 1180 gallons every $2\frac{1}{2}$ acres!

In the department of Aube, formerly part both of Burgundy and Champagne, 572,870 hectolitres of wine are made, the greater part of ordinary quality. Some pieces are, however, manufactured with care, from the *pineau*, by selecting the riper grapes, which sell at double price. In the midst of ordinary vines in the cantons of Essoyes, those of Mussy, Viviers, and Neuville are noted for their delicacy, owing to a difference in the soil, a more careful choice of the plant, and a happier aspect. At Neuville there is a hill side, called Gravilliers, where a white wine, luscious, and very agreeable to the palate, is made. It will not effervesce like Champagne, but is simply creaming. Only five hundred hectolitres are made, at forty francs.

At Ricey there are three growths, the first of which averages fifty francs. These wines are light, agreeably-tasted, but a little heady. Some rose-coloured wine is also made at Ricey. At Bar sur Aube an effervescing wine is manufactured with a white grape called *arbanne*. It is gathered when covered with dew, and instantly pressed; it is then left until the following February, when it is racked, fined, and, in order to become sparkling, put into bottles during the full moon in March.

It is useless here to particularise every variety of wine produced in Champagne. Some classes are too meagre to attract the attention of foreigners, while others will not bear exportation. It suffices to remark that in no other spot on the globe is the art of making wine of such a delicate flavour so well understood, and that the great pains taken, and the labour requisite to bring it to perfection, added to the loss in the process of effervescence, and not the scarcity of the grape, as some pretend, are the causes of the high price of the wines in comparison with other sorts. In truth, they are an article of very highly finished manufacture.

The first class of Champagne wine, beginning with the white, for which it is most celebrated, is to recapitulate, in some degree, Sillery, a still wine, with its dry taste, fine amber colour, rich body, and delicious bouquet. The wine called *vin du roi*, is much esteemed in foreign countries.

Ay, an effervescing wine, ranks next in estimation; Mareuil nearly equals it. Pierry gives a drier wine, which will keep longer than the wines of Ay, and nearly equals them in quality; there is a slight flinty taste in them peculiar to themselves. Dizy follows next, and, lastly, Epernay, part of the wines of which are inferior, and part equal to those of Ay. The wines called *Closet*, of Epernay, may rank with any grown at Ay.

The second class comprises those of Hautvilliers, about nine miles from Rheims, formerly equal to any wines in Champagne. Then the wines of the vineyards of Cramant, Avize, Oger, and Ménil, all near Epernay, and made of white grapes, which are excellent; they are often mingled with the wines of Ay to great advantage, by ensuring their preservation.

In the third class may be comprised some tolerably good wines and inferior sorts, none of which are exported, except by those who sell very low-priced Champagne abroad for the "best," as they turn it. Some of these inferior kinds are produced at Chouilly, Monthelon, Grauves, Mancy, Beaumont, and other places near Rheims. They do not possess body unless mingled with stronger growths. In fact, though pleasant drinking at home, they are not fit for exportation. The first two classes above enumerated should alone be purchased by foreigners.

The first class in the red is the Clos de St. Thierry, which mingles the best qualities of Burgundy with those of Champagne. Vergenay, St. Basle, Mailly, Verzy, and Bouzy, produce wines held in considerable repute. In the second class may be reckoned the wines of Cumières, near Epernay, Chigny, Ludes, and Villers Allerand, near Rheims. The third class of wines comprises those of the Terres de St. Thierry, Ecueil, Avenay, Vertus, Villedommange, Champillon, and Damery. There are other kinds, which need not to be enumerated, from the lowness of their quality.

BURGUNDY.

Ancient Burgundy now forms the three departments of the Côte d'Or, the Saone et Loire, and the Yonne. The wine district is situated under the forty-sixth and forty-eighth degrees of latitude, and is about sixty leagues long

by thirty wide.* The most celebrated district is the Côte d'Or, thus named on account of the richness of its vineyards. It consists for the most part of a chain of gentle calcareous hills, which extend north-east and south-west from Dijon into the department of the Saone and Loire, including a small part of the arrondissement of Dijon and all that of Beaune. One side of these hills presents an eastern, and one a south and south-eastern aspect, both which are highly favourable to the growth of the vine. The vineyards cover the elevations nearly the whole length of their range, at the bases of which a plain of argillaceous deep reddish earth extends itself, rich in agricultural produce of another species. The training of the vines is after the low method, on sticks about three feet long. They are set much closer together than is in general customary.

The superficies devoted to vine cultivation in the department of Côte d'Or is about 25,351 hectares, or 63,378 acres; of which the arrondissement of Dijon contains 6912; Beaune, 11,789; Châtillon sur Seine, 2600; and Semur, 4050.

The department of the Saone and Loire, the least important district of Burgundy as respects the quality of the wines, contains 30,708 hectares, or 76,775 acres of vineyards. Of these, 13,954 belong to the arrondissement of Mâcon, 4208 to Autun, 7248 to Châlons sur Soane, 4269 to that of Charolles, and 1029 to that of Louhans.

The third district of Burgundy, the department of the Yonne, nearly equals the Côte d'Or in the quality of its produce, while its vineyards are more extensive, containing no less than 33,630 hectares, or 84,075 acres of surface. Of these the arrondissement of Auxerre holds 13,960; Avallon, 4000; Joigny, 6083; Sens, 4270; and Tonnerre, 5317.

The total of hectares of vineyards in Burgundy is 89,689, or 224,223 acres. The value of the wines produced in the Côte d'Or is 15,473,530 francs, amounting to 578,252 hectolitres, averaging 22,81 each hectare. The total value in the Saone et Loire from 660,942 hectolitres, averaging 21,52⅓ each hectare, is 13,027,079 francs. The produce in the Yonne amounts in quantity to 886,604 hectolitres, at 23,39½, in value 23,638,886 francs. Thus the total annual value of

* The common French league is two miles, three furlongs, and fifteen poles English.

the wines of Burgundy, in years of ordinary production, amounts to 52,139,495 francs. About a million of hectolitres, out of 2,125,798, are consumed in the three departments composing the ancient province: the rest is sent to different parts of France, and to foreign countries, and naturally consists of the wines of the best quality. The red wines of Champagne resemble them most in character. The vine districts of Burgundy are known in the country by the divisions of Côte de Nuits, Côte de Beaune, and Côte Chalonnaise.

The difference of the qualities of the wine may be judged by the following lists of prices, taking for example the arrondissement of Beaune, in the centre of the Côte d'Or. There 2300 hectolitres, of superior wine, are produced at one hundred and twenty-five francs each; and 17,700 at ninety-five; 45,000 of fine wines, at sixty; 60,000 of good ordinary, at thirty; and 113,670 of common, at eighteen francs. This may serve as a specimen of the other districts in respect to quality, except that in the department of the Saone and Loire, eighty francs the hectolitre is the highest price, and fifteen the lowest. In the department of the Yonne the higher classes of red Burgundy fetch from three hundred to four hundred francs the muid,* or rather under one hundred and twenty-five the hectolitre, while the lowest bring but fourteen francs. The white wines bring from ninety-eight to twenty-three. Thus the white wines neither rise as high nor sink as low in price as the red. The quantity of alcohol in these wines is said to be 13·50, but in this respect there is a considerable variation in the experiments, as no two wines are exactly alike in point of strength, the results yet obtained are not therefore very satisfactory.

Burgundy is perhaps the most perfect of all the known red wines in the qualities which are deemed most essential to vinous perfection. The flavour is delicious, the bouquet exquisite, and the superior delicacy which it possesses, justly entitles it to be held first in estimation of all the red wines known. It cannot be mixed with any other; even two of the first growth, mingled, deteriorate the quality, and injure the bouquet.

It is unnecessary to go into the history of the lower growths

* Of two hundred and eighty litres, or 73·930 gallons.

of the wines of Burgundy, because they are rarely exported. It will suffice to take a cursory notice of them, and dwell longest upon those wines which are best known out of France. The three more celebrated districts have been enumerated on the preceding page, namely, those of Beaune, Nuits, and the Châlonnaise.

The fine wines of Upper Burgundy, in the arrondissement of Dijon, are the produce of about seven hundred hectares, while in the arrondissement of Beaune seven thousand are cultivated for making the better growths. The arrondissement of Dijon, near Gevray, five miles from Dijon, produces the red and white Chambertin. The vineyard is very small. The soil is gravelly, with loam. The gravel is calcareous, and the subsoil marl with small shells. It is a wine of great fulness, keeps well, and has the aroma perfect. It was the favourite wine of Napoleon. The first class never passes out of France. They make an effervescing Chambertin, a wine inferior to good Champagne. It wants the delicate bouquet of Champagne, by the absence of which it is easily detected. The French complain of its having too much strength, but this would recommend it in England. It is a very delicate wine notwithstanding, and highly agreeable to the palate. It has been frequently imported into London, and is much commended by those whose regard for the delicate bouquet of Champagne is less than that for the carbonic effervescence of similar growths. In spirit it is perhaps a little above the average of Champagne, which it resembles so much, that persons, not judges, might easily mistake the one for the other. The principal plants used are those called the *noirien* and *pineau*. The *gibaudot* and the *gamet*, which last grape has an ill name, are used for the inferior kinds of wine. The *gamet* yields largely, sometimes a thousand gallons an acre. It is manured, and is called the poor man's vine. The *chaudenay* for white wine is gathered here at the latest period, and carefully assorted. There is a saying that "a bottle of Chambertin, a *ragout à la Sardanapalus*, and a lady *causeur*, are the three best companions at table in France." At Bèze, St. Jacques, Mazy, Véroilles, Musigny, Chambolle, the Clos Bernardon, du Roi, of the Chapitre, of Chenôve, of Marcs d'Or, of Violettes, of Dijon, in the commune of that name, most excellent wine is made. In the Clos de la Perrière, in

the commune of Fixin, belonging to M. Montmort, a wine in quality and value equal to Chambertin is grown. Many of these vineyards produce white wines as well as red.

In Beaune, as already stated, the wine country is much more extensive than in Dijon. The aspect, as before observed, is north-east and south-west, being the direction of the main road conducting from Dijon to Châlons sur Saone, passing through the towns of Beaune and Nuits, both names familiar to connoisseurs in wine. The first commune is Vougeot. Upon the right-hand, on leaving the village, the vineyard of that name, once belonging to a convent, is seen extending about four hundred yards along the side of the road. It forms an enclosure of about forty-eight hectares, 112½ acres English, and sold once for 1,200,000 francs. The aspect is east-south-east, and the slope of the ground makes an angle of from three to four degrees. Here is produced the celebrated wine called Clos Vougeot. The upper part of the land turns a little more south, forming an angle of five or six degrees. The soil upon the surface differs in this vineyard. The lower part is clay, while the uppermost has a mixture of lime, and there the best wine is grown. The average is about two hogsheads and a half the English acre. No manure is used, but the soil from the bottom of the vineyard is carried up and mingled with that at the top. The cellars contain vats, each of which holds about eighteen hogsheads, in which the must is fermented. The time occupied is uncertain. The wine is best when the fermentation is most rapid. Above this vineyard is another choice spot, called the Esséjaux, which is much esteemed, but less so than the higher part of the Clos Vougeot. Further on is Vosues, a village which produces the most exquisite wines that can be drank, uniting to richness of colour, the most delicate perfume, a racy flavour, fine aroma, and spirit. The most celebrated of these wines are the Romanée St. Vivant (so called from a monastery of that name), Romanée-Conti, Richebourg, and la Tache. The vineyard producing the first-mentioned wine is below those which yield the Richebourg and Romanée-Conti, and contains only ten hectares of ground. The Romanée-Conti is considered the most perfect and best wine in Burgundy. Ouvrard, the contractor, bought this vineyard for 80,000 francs. The wine is produced in an enclosure of about two hectares in

extent, forming a parallelogram, and the quantity made is very small. The Richebourg enclosure, of the same form, contains only about six hectares. The aspect of the Romanée-Conti is south-east, and the ground forms an angle of five degrees in slope. There is no difference in the management of this wine from that of the neighbouring growths.

Continuing to follow the road, about a league from Vosnes, is the small town of Nuits. A part of the ground extends south-west, and is mostly flat. Upon this superior wines are grown; and among them, on a spot of only six hectares in extent, in a slope with a south-eastern aspect of not more than three or four degrees, the well-known St. Georges, of exquisite flavour, delicious bouquet, and great delicacy. The other vineyards on the road produce wines of ordinary quality. In the commune of Aloxe, a wine called Corton is grown, which is in repute for its bouquet, delicacy, and brilliant colour. The ground from which this wine is made gives only ten or twelve litres of wine each hectare, of which there are but forty-six. Nothing is more remarkable or unaccountable than the difference of production in these fine wine districts. The most delicious wine is sometimes grown on one little spot only, in the midst of vineyards which produce no other but of the ordinary quality; while in another place the product of a vineyard, in proportion to its surface, shall be incredibly small, yet of exquisite quality; at the same time, in the soil, aspect, treatment as to culture, and species of plant, there shall be no perceptible difference to the eye of the most experienced wine grower. In such a district as the Côte d'Or, it is difference of site rather than of treatment, to which the superior wine owes its repute, for there is no want of competition in labouring after excellence.

Bordering on Aloxe is the vineyard of Beaune, a well-known wine of a very agreeable character. Not far from thence is produced the Volnay, a fine, delicate, light wine, with a taste of the raspberry, and Pomard, of somewhat more body than Volnay, and therefore better calculated to keep, especially in warm climates. These are wines which, when genuine, bear a good character all over the world.

Between Volnay and Meursault the vineyard of Santenot is situated; it consists of twelve hectares, upon a southern slope. The higher part produces a celebrated white wine

called Meursault; the middle and lower a red, which is considered preferable to Volnay. In the neighbourhood of Meursault are grown the wines denominated "passe-tous-grains" by the French, and the dry white wines, of a slight sulphurous taste, much drank in hot seasons, called wine of Genévrières, of the Goutte d'Or, and of Perrières. The quantity of hectares on which these last wines are grown is but sixteen. The situation to the south-west of Meursault, where it joins Puligny, is noted for the delicious white wine called Mont-Rachet, of exquisite perfume, and deemed one of the most perfect white wines of Burgundy, and even of France, being the French Tokay in the opinion of many connoisseurs, but only in renown, for these wines bear little resemblance to each other. The vine-ground of Mont-Rachet is divided into *l'Ainé* Mont-Rachet, *le Chevalier* Mont-Rachet, and *le Batard* Mont-Rachet. The vineyard of the Chevalier, which is on the higher part of the ground, is a slope of about twelve or fifteen degrees, and contains eighteen hectares. L'Ainé, or the true Mont-Rachet, is but six or seven hectares. The Batard is only separated from the two other vineyards by the road which leads from Puligny to Chassagne, and contains about twelve hectares. These vineyards have all the same south-eastern aspect, yet the wine from them is so different in quality, that while Mont-Rachet sells for twelve hundred francs the hectolitre, the Chevalier brings but six hundred, and the Batard only four hundred. There are two vine-grounds near, called the Perrières and Clavoyon, which produce white wines, sought after only from their vicinity to Mont-Rachet.

Chassagne, four leagues south-west of Beaune, called Chassagne le Haut, and Le Bas, not far from Puligny, is productive vine land. The canton of Morgeot contains twenty hectares, which produce a red wine, much sought after. It faces the south-west, and owes its good qualities to its excellent aspect. The village of Santenay, on the borders of the department terminating the elevated land, grows some choice wines, such as Clos-Tavannes, Clos-Pitois, and the Gravières, though not equal in quality to those already enumerated.

There is an infinite variety in the wines of Burgundy which an Englishman can hardly comprehend. Accustomed to wines less delicate than intoxicating, and regardful rather of

the wine taken from habit than quality, his favourite beverage is chosen more from that cause than perfection of flavour. The nature of the soil, the aspect, the season, the plant, and mode of culture, as well as the making, each and all equally affect the quality of these wines more than wines in general, on account of their great delicacy. The most finished and perfect Burgundies, the French say, are deteriorated by so short a voyage as that across the channel from Calais to Dover, including, of course, the journey to the former place. They are never sent away but in bottle.

The best Burgundies, called *les têtes de cuvées*, are from the select vines, namely, the *noirien* and *pineau*, grown on the best spots in the vineyard, having the finest aspect. These rank first in quality, and are wines, when well made, in favourable seasons, which include every excellence that the most choice palate can appreciate. Fine colour, enough of spirit, raciness, good body, great fineness, an aroma and bouquet very powerful, strong in odour, and that peculiar taste which so remarkably distinguishes them from all the other wines of France. The next, called the first *cuvées vins de primeur*, approximate very closely to the first class in quality, except that the perfume is not quite so high. Good wines, *les bonnes cuvées*, which are grown on a soil less favourable than the foregoing, and in an aspect inferior, fairly rank third in quality. Then come *les cuvées rondes*, having the same colour as the foregoing, and equal in strength, but wanting their full fineness and bouquet. Next they distinguish the second and third *cuvées*, the colour of which is often weak to the preceding growths, they are deficient in spirit, and destitute of fineness and flavour. These three last classes of the wines of Burgundy come from the same species of vine as the two first, but the soil is inferior, or the aspect not so good, being perhaps more humid, or less exposed to the sun. Their abundance compensates to the grower for their inferiority.

Of the common red wines of the Côte d'Or, there are two sorts, called wines *de tous grains*, or *passe tous grains*, which come from a mixture of the *noirien* and *pineau* grape, with the *gamay*. The wine de tous grains is an ordinary wine, which, when good, is much esteemed in hot seasons. It has a deep colour, tending to the violet, much body, sufficient spirit, and after a certain age, a little bouquet. It is a coarse

wine, but will keep a long time without sickness of any kind, and is much valued for sustaining such wines as tend to dissolution. It is often better than those which are called "les seconde et troisème cuvées," of a middling season.

There are only two sorts of white wine in the Côte d'Or: the first made from the white *pineau*, and the second from the common plant mingled with it. These two sorts are each marked by two or three sub-divisions. The first in quality, the finest and best, is the Mont-Rachet, already mentioned. It is distinguishable in good years for its fineness, lightness, bouquet, and exquisite delicacy, having spirit without too great dryness, and a luscious taste without cloying thickness. In making, they endeavour to keep it with as little colour of any kind as possible, no doubt for the purpose of preserving that lightness of hue which white wines rarely possess, being yellowed, probably, by the absorption of oxygen, which incorporates with them while in contact with the atmosphere.

Most of the other white wines of the Côte d'Or differ most essentially from that of Mont-Rachet. The common kinds are more or less flat, acid, without body, and deficient in fineness and strength.

The prices of the wines of the Côte d'Or differ greatly, and cannot be fixed. The "têtes de cuvées," or choice products in the best years, are never sold under a thousand francs the queue or tonneau; or two hundred and fifteen francs the hectolitre. "Les premières cuvées" in such seasons bring seven or eight hundred francs, according to their grades of distinction; "les bonnes cuvées" from six to seven hundred; "les rondes," from four to five hundred; "les deuxièmes et troisièmes," from three hundred and fifty to four hundred. The most esteemed, "passe tous grains," from three hundred and fifty to four hundred, and above; the others not more than two hundred francs.

The Mont-Rachet brings twelve hundred francs; the other white wines from three to six hundred; and the common sorts from fifty to seventy the queue.

It often happens in superior years that the best wines, after making, do not bear a higher price than four hundred francs, and yet in fifteen months twelve or fifteen hundred are demanded for them. It may be easily judged, therefore, that no scale of prices, when the wines are perfect, can be perma-

nent, owing to this circumstance. The following is a list of prices the Burgundy wines brought from the vineyards on the hills of Beaune, on an average of ten years; but it must be borne in mind, that the time of purchase was at the vintage immediately upon making, and paid by the highest bidder, and not when the wines had been kept. Volney, the queue, 460f.; Pomard, 450f.; Beaune, 440f.; Savigny, 420f.; Aloxe, 430f.; Aloxe, the Corton wine, 490f.; Chassagne, 410f.; Chassagne Morgeot, 470f. The product of Puligny, viz., Mont-Rachet, 1000f.; Perrières and Clavoyon, 380f. Meursault wines, viz., Les Genévrières, la Goutte d'Or, 450f.; and Santenot red wine, 480f.; the common red wines sell for 90 or 100f.; and the white from 75 to 90f., including the cask.

The wines from the Nuits district are superior to those of Beaune for aroma, body, softness, raciness, and will bear transport to any distance. Prémaux, 500f.; Nuits, 500f.; Nuits St. George's, 580f.; Vosnes, 530f.; the wines of Vosnes, viz., Richebourg, 600f.; La Tache, 600f.; Romanée St. Vivant, 700f.; Romanée-Conti, six or seven francs a bottle. Vougeot, 530f.; Clos de Vougeot, five or six francs the bottle, at ten or a dozen years old, if the vintage has been very fine; if otherwise, at three or four years from the vintage. It is preserved till bottled in large vats, in which it mellows better than in the cask. The quantity produced is but about two hogsheads and a half the English acre. The white wine made here has been long diminishing. The grape is the black and white *pineau* and the *chaudenay*. No manure is permitted. The vines are fifteen inches apart. The proprietors of the vineyards of Vougeot and Romanée-Conti do not usually sell their wines in wood, nor, except in years of bad quality, do they sell them immediately, and then generally by auction. They keep them in their cellars for years, and only at last dispose of them in bottles made on purpose, and bearing their own seals.

In the arrondissement of Dijon, the following were not long since the prices of two year old wines. It may be judged, from what has been already stated, that such a list can only be an approximation to the truth for consecutive years.

The white wines less celebrated in this district than the red, carry a price generally of 456 litres the queue, or about

114 gallons; Chambertin, 800 to 1000 francs the queue; Gevray, 500 to 550; Chenôve Montrual, 350 to 400; Violettes, 310 to 350; Marsannay, 300 to 330; Perrières, 200 to to 240. The red wines are, per queue: Chambertin, 1400 to 1500 francs; Gevray, 700 to 800; Chambolle, 700 to 800; Chenôve, 400 to 450; Dijon, 300 to 400 francs. Marsannay, and other ordinary wines, 200 to 300; Fixin and Fixey, light wines, good ordinary, 150 to 250 francs, the casks included.

The wines of the Côte d'Or most in repute, and of the best class, are those which generally develop their good qualities the slowest, when they have not been cellared for the purpose of rendering them potable too soon. Opinions are different upon the most eligible period to bottle them. Some think that they preserve their good qualities best when they are bottled at the end of fifteen months from the vat; but more think the third or fourth year a better time, when the proprietor can afford to delay it so long. The inferior sorts are delivered for consumption at the end of the second or third year, according to the quality. The fine wines are not commonly delivered until the month of March of the second year after the vintage. The good ordinary wines are bottled at the end of the first year, or they remain longer, if convenient to the consumer. The care bestowed upon the making, accelerates or retards the perfection of these wines. The longest duration of the finest wines most capable of keeping, does not exceed twelve or fifteen years from the season in which they are made. After that time, though they will support themselves some years, they decline instead of improve. From the second year in bottle, the fullest bodied and hardiest wines have attained their highest degree of perfection. All that can be desired after this period is, that they shall not deteriorate. The duration of the ordinary wines is not so easily defined. They are rarely kept long in bottle, for after the second or third year they would become good for little. The produce of some of the wines of the Côte d'Or is nearly a thousand English gallons the acre.

The manner of making the best and most celebrated wines of the Côte d'Or is sufficiently coarse: the grapes are commonly trodden before they are thrown into the vat; a part of the stalks are then taken out, and the must is suffered to ferment. The gathering takes place in the hottest sunshine.

The fermentation in the vat, which contains about eighteen hogsheads, and is usually left uncovered, lasts from thirty to forty-eight hours, if the weather is hot, and from three to eight days, and even twelve days, if it be cold, for the first class of wines. The white wines are longer. The wine is then drawn off into vats containing each about seven hundred gallons. The management consists of a racking in the month of March following the vintage, and a second racking in September, repeated every six months, for the red wines. The casks are kept exactly filled, and the wine is fined. Many persons make the first racking soon after the first frost happens, fine immediately, and rack again in the month of March, and then in the month of September.

The next division of Burgundy, considered as respects the excellence of its wines, is the department of the Yonne. It contains, as has been already stated, more space devoted to the culture of the vine than the Côte d'Or; but though it produces some wines of very good quality, they are inferior to those of that renowned district.

The prices in the arrondissement of Auxerre are from forty francs the muid of 280 litres, to three hundred and three hundred and fifty. These wines may be arranged in three classes. The first is made from the black *pineau* grape alone. It has a good colour, and agreeable bouquet, with strength and spirit, and yet does not injure the head or stomach. In this class may be placed the following wines in their order of superiority :— Chainette ; Migraine ; Clairion ; Boivins ; Quetard ; Pied de Rat ; Chapotte ; Judas ; Boussicat ; Rosoir; Champeau ; the Iles. These wines are produced on one hundred and thirty hectares of land. Hence may be judged the vast variety of species. They bring from three to four hundred francs the muid ; the mean price is about three hundred and fifty francs.

In the communes of Irancy and Cravant wine is produced called Palotte, worth about ninety francs the hectolitre, and much esteemed. This district produces red wines still lower in price.

The second class of wines is made from the grapes called *tresseau, romain,* and *plant du Roi,* alone or mingled. Of this class the *tresseau* alone is the superior kind. The wine sells for thirty-six francs the hectolitre.

The third class is made from the plant *gamay* or *gamet*, and is, on that account, a common wine, strongly coloured, but cold. It is remarkable that this wine, mingled with white wine, becomes sooner ripe than in its natural state.

Of the white wines of the Yonne, the best class is produced from the *pineau blanc* alone. The chief of these is Chablis. If this wine is the product of a favourable year, it should be very white. It is a dry wine, diuretic, and tastes flinty. The best wines of Chablis stand in the following order: first, Val Mur; secondly, Vauxdesir; thirdly, Grenouille; fourthly, Blanchot; fifthly, Mont-de-Milieu; forming together about fifty-five hectares of vineyards. These wines sell in the common run of the seasons at from two hundred and fifty to three hundred francs the muid.

The second class of white wines is produced from the white *pineau* grape and the species called *plant vert*. It is made at Chablis, and in other parts of the arrondissement. All these wines are called Chablis by the merchant, though of ever so inferior a quality. They are agreeable wines, nevertheless, and sell on the average of seasons for a hundred or a hundred and ten francs the muid.

The third class of white wines is the product of the *plant vert;* grown in a bad aspect and soil, it brings about twenty-three francs the hectolitre.

The white wines of the first quality do not keep so well as the red. The first class of red wine is often kept in the wood for more than three years before bottling. It is excellent after it has remained a year in bottle, and will keep good for ten years more. The white wines are perfect at three or four years old, but are subject to get thick as they acquire age. In the wine districts of the Yonne the wines are racked twice the first year, and not again except just before they are sold. They are never fined except for bottling.

The vineyards of Avallon produce three distinct qualities of wine. The first delicate, fine, spirituous, and good, bringing fifty francs the hectolitre; secondly, a wine of ordinary quality, bringing forty francs; thirdly, common wines, worth very little. The best wines of Availlon are those from Rouvres, Annay, Monthéchérin, Monfaute, Clos de Vézeley, and Clos de Givry. Wines which form the ordinary wines

of rich families are Vault, Valloux, Champgachot, Thurot, Girolles, and Etandes. These wines are treated very nearly the same as in Auxerre prior to bottling. The Champgachot is liable to a singular disease. In spite of racking, and all the care taken, it is sometimes loaded in spring with a cloudiness which changes its taste and hue. In this state they are careful not to disturb it, and it soon works itself clear and of a good colour. It is rarely better than after this sickness, which never happens but once. Some of the growers are pleased to see the wine put on the appearance.

The best wines of the arrondissement of Joigny do not fetch more than forty francs the hectolitre. In the arrondissement of Sens there are wines that bring about sixty, such as that of Paron, but the quantity is small.

The arrondissement of Tonnerre merits attention for its wines. The vines are planted on calcareous slopes differing in aspect. Those of the south-east and south are very good. Such as bear a south-west aspect are also much esteemed, and give the best wine. Of this latter aspect is the vine-ground from Tronchoy to Epineuil inclusively, where the most distinguished wines are grown, such as those of Préaux, Perrières, des Poches, and others, particularly Olivotte, in the commune of Dannemoine.

The wines of Tonnerre of the finest kind fetch ninety francs the hectolitre on an average; and the other kinds in gradation from sixty to thirty-five. The wine of Olivotte, one of the best, has good flavour, is fine, and of excellent colour, but it lacks the true bouquet, unless in very favourable years. The communes which furnish the best wines are Tonnerre, Epineuil, Dannemoine, for the finer red wines; those of the second and third qualities are grown at Molosme, St. Martin, Neuvy, and Vezinnes. White wines are grown in the communes of Tronchoy, Fley, Béru, Viviers, Tissey, Roffey, Serigny, and Vezannes. Those of Grize, in the commune of Epineuil, as well as that of Tonnerre, and above all, of Vaumorillon, in the commune of Junay, are distinguished. These wines are treated in making as in the Côte d'Or, and will keep good in bottle from five to ten years.

The department of the Saone and Loire is the other division of ancient Burgundy. The quality of its wines is by no means equal to those of the Côte d'Or or the Yonne, and

they are, therefore, the Burgundies of the less opulent classes.

These wines differ in prices: the arrondissement of Mâcon furnishes red wines, for example, to the extent of 4349 hectolitres, at sixty francs the hectolitre, and 219,982 hectolitres of varying quality at intermediate prices down to fifteen. There are excellent wines in quality between those of Burgundy and the Rhone, which at six or seven years old are in their prime age. They drink with water better than any other wines. Lyons is a great consumer of these wines. The wines of the commune of Romaneche, called Les Theorcins, sell for fifty-six francs; la Chapelle de Guinchay, Davayé, Creuze Noire, St. Amour, at different prices, down as low as twenty-five francs. The white wines of the first class, such as Pouilly, are of superior quality, and better adapted for carriage than the red, but the quantity made is much less. They sell at fifty-six francs; Fuissé at forty-seven; Solutré, Chaintré, Loché, Vinzelles, Vergisson, Salornay, Charnay, Pierre-clos, still lower.

The annual value of the wine does not increase in consequence of the goodness of the quality. The wines of Burgundy are generally dearest in years when their quality is indifferent. This has given rise to the proverb among the wine-growers, *vin vert, vin cher*—"tart wine, dear wine." The reason of this is, that the good quality of the wine always accompanies abundant years, and the reverse. The cultivation of the vine in these districts has been very much improved of late. The quantity of fruit produced is also more considerable. The system in the Mâconnais is for the most part a division of the produce between proprietor and cultivator. The Vignerons here are a sober, economical, respectable class of men. The hectare of vines, or about two acres and a quarter English, represents a capital of 5000 or 6000 francs. Not less than 40 or 50,000 hectolitres might be sent out of the district, were wine demanded to that extent.

Of other red wines the little canton, named Moulin-à-vent, produces a light and delicate species; but it must be drunk in the second or third year. It will not keep beyond the tenth. The wine of Davayé ameliorates best by age. It may be drunk in the second year, and will keep till the

twentieth. It approaches nearest the wines of the Côte d'Or in excellence, though considered but an ordinary wine. When it is kept some time it rises superior to the class denominated ordinary, in the common sense of the word. The white wines of Pouilly rank superior to any of the red wines of the Mâconnais. In good years they rival the first products of the French soil, and compete with the best wines of Champagne, Burgundy, or the Bordelais, according to the inhabitants of the Mâconnais. Their characteristic is the nutty taste they leave on the palate. At one year old they drink smooth and agreeable, after which they much resemble dry Madeira, both in colour and strength. They will keep a long time. The wine of Fuissé does not taste of the nut like Pouilly, but has a flinty flavour; is fine and delicate. It becomes more spirituous by age. The wines of Solutré are more like those of Pouilly than Fuissé, but are inferior. These and the other white wines enumerated before, are often sparkling or *mousseux*, of their own accord, in the first, and sometimes the second year, when bottled in March. They keep long and well.

The red wines keep a good while in wood, but the white are bottled in the month of March of the first year. They are twice racked, and fined only six days before bottling.

In Autun there are three qualities of wine. The best is called Maranges; it is left in wood three years, bottled the fourth, and keeps well. Its mean price is seventy-six francs. The second quality of wine is that of Sangeot, and, indeed, all the wines of Dezize, except Maranges. These are ordinary wines, and bottled at three years of age; will keep twenty. They increase in quality by age, and become from *vins d'ordinaire* to be *vins d'entremets*. The mean price is thirty-five francs the hectolitre. The wines of Châlons admit of the same divisions in quality as those of Autun. The best wines are from the noirien grape, and the best of the first growths fetch sixty-six francs, and of the second growths forty-four francs. These wines have a fine and delicate taste; they please by their agreeable odour and aroma. In the ordinary wines the aroma is not present; still they are pleasant drinking of their class. The better ordinary wines of Châlons increase in value by age, augmenting a fourth in price every year they are kept. A bottle of the finest wine

fetches from two to three francs. In the arrondissements, the produce of which is not here detailed, the mean price of the hectolitre is from twenty to twenty-four francs.

Such are these wines, the most perfect ever grown, and yet the care taken of them by the maker, from the press to the bottle, is by no means equal to that taken of Champagne. Nature and the site, with the observance of a very simple and common process, are all that are demanded to bring to its present perfection the first red wine in the world. The secret of the excellence of Burgundy depends upon unknown qualities in the soil, which are developed only in particular places, often in the same vineyard, at all events within a very narrow district. Whatever be the cause, France has in these wines a just cause of boast, and a staple in which she has never been excelled. While much is owing to the climate and aspect, it is evident that the peculiar characteristics of Burgundy depend least upon the art or labour of man, since wines inferior in quality receive as much or more of his attention than those of Burgundy.

There is very little of the first class of these wines exported from France, in this respect differing from Champagne, where the best finds its way into foreign countries. There are several reasons for this, and among the foremost, the small quantity produced, which the French, who are choice in wines, know very well how to distinguish, but which foreign merchants very rarely do. As good a price can be obtained in France for the highest class of Burgundy, such as Romanée-Conti, of which only a dozen pieces are annually made, or for la Tache, as can be obtained anywhere. The first of these wines, being grown upon less than four acres of land, is not beyond the supply of the Paris market; and to the second, grown upon a spot of ground of about six acres, the same remark will apply. The genuine Chambertin is a scarce wine with the foreigner. The other wines of the first class of Burgundy are therefore substituted for these to the stranger almost universally. This is, however, of less consequence, when it is considered that very few persons, except those of the best taste habitually acquainted with them, can discover the difference. In wholesomeness, and every essential quality to the ordinary drinker, they are equal to the first growths.

To recapitulate the wines of the Côte d'Or: the finest Burgundies of the Côte de Nuits are, Romanée-Conti, la Tache, Chambertin, Romanée St. Vivant, Richebourg, Nuits, St. George's, Clos Vougeot, Prémaux, Vosnes, and la Perière. Of the Côte de Beaune, Chambolle, Musigny, Volnay, Pomard, Beaune, Savigny, Aloxe, Aloxe de Cortin. Of the Côte de Challonais, Vosnes, Morey, Santenot, St. Aubin, Maranges. These are the three first and finest qualities among red wines. Of white, the celebrated Mont-Rachet takes the first place, then the Goutte d'Or and Genévrières, of Meursault. The red wines of the second class above are many of them little inferior to the first.

The first class of the wines of the Yonne comprises those called des Olivottes, near Tonnerre, and Perrière. Those of Auxerre have been enumerated in a preceding page, to which, in the second class, may be annexed the wines of Epineuil, les Poches, Haute Perrière, Irancy, Dannemoine, and Coulanges la Vineuse. The white wines of the first class are Chablis, Tonnerre, le Clos, and Vauxdesir.

The first class of Burgundies in the Saone and Loire are Moulin à Vent, Torins, and Chenas. The second class comprise Fleuri, Chapelle des Bois, and, in short, all the district of Romanèche. The white wines are Pouilly, Fuissé, of the first class, and Cheintré, Solutré, and Davayè of the second.

WINES OF THE RHONE, &c.

The wines of the south of France generally may be taken, without confusing the reader, in the order in which they happen to offer themselves. Some of them rank with the best red and white wines of that country in the estimation of excellent judges.

The department of the Drôme was part of ancient Dauphine under the old division of France. Its vineyards cover 28,212 hectares. The vineyards of Valence are the most important for the excellence of their wines; but those of Montélimart are two thousand hectares more in extent, and their produce is somewhat greater, being 219,024 hectolitres; those of Valence produce only 210,000. The arrondissements of Die and Nyons are also noted for wines, but they do not come up to those of Valence in character. The total value of the vinous product of this department is estimated at

9,918,152 francs, and the return averages about eighteen hectolitres per hectare. Of these wines above a hundred thousand hectolitres of the choicest are exported to the north and to Bourdeaux. The wines of Tain are almost exclusively bought up for that city.

Of wine grown in Valence, both white and red, the quantity is about 2700 hectolitres, averaging one hundred and sixty-six francs; of Crose, red and white, 4230 hectolitres, at one hundred and twenty-eight; Chanos-Curson, 3384, at fifty-two; Mercurol, 5238, at seventy-eight; Brézème, 126 hectolitres only, at one hundred and forty-three. The other varieties, about 195,000 hectolitres, average only from twenty-eight to fifteen francs.

Hermitage, a church wine in name, strength, and paternity, is grown on a hill near the town of Tain, in the arrondissement of Valence, situated on the left bank of the Rhone, with a southern aspect. It is a celebrated variety. The vines are grown upon slopes; the principal elevation, of no great height, is called Bessas. It is part of a chain of granitic mountains which extend from St. Vallier to Tain. On the summit of Bessas may yet be seen the ruins of the retreat of the hermits, of whom the last died above a hundred years ago. Portions of the granite seem to be in a state of decomposition. This granite is crossed by veins of a gravelly texture, by one of a calcareous character, and by some of pure sand.

Tradition says that an inhabitant of the town of Condrieu determined to turn hermit, and established his cell on an uncultivated hill near Tain. He amused his leisure hours by breaking the stones and rocks to pieces which surrounded his dwelling, and planting among them some vine-slips of the vionnier species, from Condrieu. The shiraz, or scyras vine, was afterwards introduced. It succeeded to admiration. The hermit's example was copied by others, and the sterile hillside was soon converted into a vineyard.

Hermitage wine is divided into five classes. It is styled by the French the richest coloured in their great variety of wines, but it differs much with the seasons as to quality. Red Hermitage will not keep more than twenty years without altering. The price of the first class after the vintage is often as high as five hundred and fifty francs the piece of two hundred

and ten litres, or about forty-five imperial gallons. The other growths or elasses sell from four hundred and fifty down to three hundred, and even as low as two hundred and fifty franes the piece. When the season is bad, and the wine of moderate quality, the wine of the first growth will not bring more than two hundred and fifty, and of the last, one hundred and twenty franes. All these are to be eonsidered the priees when new at the vintage, and as only approximating to the mean priees in the relative cases.

Red Hermitage, of the first elass, is not bottled for exportation until it has been four or five years in the cask, in whieh, as well as in bottles, it is generally sold at that age. The price in the former case is high, even if the quality be moderate. In bottle the best sells for about four francs. The priee of this wine is regulated by the quality, together with the demand for exportation, and not by the quantity or seareity. The quantity produeed is only about 2369 hectolitres, or 63,000 gallons, including every quality. Crose is eontinually passed off for second and third elass Hermitage. Parts of the vineyards have brought as much as 70,000 francs per heetare. It is fermented in large vats. The fermentation lasts about five days; but its treatment is not so perfeet, on the whole, as that of some other French wines. Inferior elasses of wine from this distriet are exported from the department, to give strength to wines in other parts of France. The produee is about twelve easks per heetare, or 220 old English gallons.

The white Hermitage is made of white grapes only, and divided into three growths. This is the finest white wine France produees, and little or none of the first growth is exported. The French value it highly. The second quality is generally passed off as the first to the foreigner, and figures as such in the lists of the foreign merchant. Its colour should be straw-yellow; its odour is like that of no other known wine. It is of a rieh taste, between that of the dry and luscious wines. It is often in a state of fermentation for two years, but is never delivered to the eonsumer, if it can be avoided, until fermentation is complete. The quantity of real white Hermitage does not exeeed a hundred and twenty pieees annually. It keeps much longer than the red, even to the extent of a eentury, without the least deterioration,

though after twenty-five or thirty years old it assumes somewhat of the character of certain of the old Spanish wines, and its perfume and taste undergo a change.

Ermitage-paille, or straw Hermitage, is made from white grapes carefully selected out of the most perfect and best. These are dried on straw for six weeks or two months, and then submitted to the press. But little is made, and that carries a very high price; for to obtain it in perfection, a season which brings the fruit to exact maturity is required, dry without cold, during the time the grapes are exposed on the straw. Ermitage-paille is a rich, luscious, sweet wine.

Red Hermitage is produced from the two varieties of the scyras plant, the little and great. The vines are about thirty inches from each other. A tradition is current that this grape was brought from Shiraz, in Persia, by one of the hermits of Bessas. White Hermitage is produced almost wholly from the greater and lesser rousanne grape.

The charge frequently made against the luxury of convents and monastic establishments, though in some cases well founded, is on the whole undeserved. The religious houses, in which men secluded themselves so contrary to the law of their nature, were generally begun with scanty means, and arose to wealth by slow degrees. The brethren, nine times out of ten, sat down upon spots rather calculated to excite the contempt than the envy of the agriculturist. Secluded, romantic, and remote spots were chosen. The most sterile lands were brought into cultivation by the manual labour of the monks themselves, in many cases close round their incipient establishments. In process of time the poor land became rich by assiduous culture, and then the brethren were accused of being luxurious, drunkards, and the like. There are numerous vineyards in France, on the Rhine, everywhere, once theirs, and some of the best wine is the legacy of the monastic orders. The vine grows in poor soils, and was, therefore, one of the first fruit-trees that those who had poor land would seek to cultivate. Its product would naturally be better managed by men of some education than by ignorant peasants with none. Hence the superiority of the wine which their spoils have made known far and wide. This is but rendering justice to the race to whom we also owe much in the revival of letters, as well as in Hermitage wine, their ad-

vocacy of depopulating the world through their celibacy notwithstanding.

The red wine of Crose is of the same character as Hermitage. The third growth of Hermitage and the first of Crose rank together. It is a finer wine and not quite so full. About 3995 hectolitres are made, some of which is often exported as Hermitage. The white Crose is a light, delicate wine, with little vinous body. It sparkles like Champagne, and hence, perhaps, is often called *Cotillon* by merchants, a name given by them only to effervescing wines having fineness and sweetness, such as Crose and white Mercurol. These wines bring from two hundred to two hundred and fifty francs the piece of two hundred and ten litres. In commerce they sell from two francs to two francs and a half the bottle. They will keep about fifteen years, but become dry wines in four, losing their effervescence entirely. They do not approach Champagne; they want its perfume and vinosity.

Chanos-Curson is another effervescing white wine of this district. It is weaker in body than the Crose, but is exported to Flanders and the north. It will not keep more than four or five years. It brings from a hundred to a hundred and twenty francs the piece.

Mercurol is a red wine of the same nature, but lighter than Hermitage. Its perfume is agreeable; it is fine, vinous, and well-bodied. Gervans-rouge, Roche-rouge (the latter earthy in taste), and Thassis, are all red wines, rarely sent out of the district. They are grown on a stony soil in general, and bring from fifty to ninety francs the piece.

The other wines, red or white, are worth only from fifteen to twenty francs the hectolitre, the wine called Brézème excepted, which in most respects may rank with the third class of Hermitage; very little is exported, because it is scarcely known. It is however beginning to be sought after. In the most productive year only about sixty pieces, of three hundred francs in value, have been made. The vineyard of Brézème is on a hill belonging to the commune of, and near Loriol; it is only one league from the left bank of the Rhone, three-quarters from the Drôme, and seven leagues from the Hermitage, with the exposition and soil of which it carries a perfect analogy. In some instances it has brought four hundred and fifty francs the piece.

The arrondissement of Die furnishes only common wines. The best are grown at Saillans and on the hills of Crest and Die, and are tolerable white wines. The best known is the Clairette de Die, a very agreeable effervescing wine. In price these wines vary from ten to thirty and forty francs the hectolitre.

Nyons and Montélimart furnish ordinary wines from twelve to twenty, or thirty francs the hectolitre; the better price is that of years of scarcity. In the arrondissement of Montélimart, nevertheless, there is a vineyard worthy of notice. It is in the commune of Rochegude, and the wine produced there, called Tinto, sells for a hundred francs the hectolitre.

The department of the Rhone, formerly the Lyonais and Beaujolais, is noted for good wines. The quantity produced, of all kinds, amounts to 458,000 hectolitres. The land in vineyard is 18,126 hectares, divided between the arrondissements of Lyons and Ville Franche. The vines here give 25·26⅔ hectolitres per hectare, and are valued at 10,366,400 francs. Of these wines all, except 68,000 hectolitres, are consumed in the department. The portion unconsumed there is partly sent to Paris, or to Bordeaux for exportation abroad, either pure or mixed with the wines of that neighbourhood.

The wines made in the arrondissement of Lyons are small in quantity, either red or white, which can be arranged among wines of the first order. The most noted is Côte Rôtie. This red wine is grown near Ampuis, on the south side of a hill, and ranks as one of the first in France. The quantity produced of the very best quality is small, rarely exceeding two hundred and fifty hectolitres. Wine of the second quality is often passed off for the first upon the buyer. Côte Rôtie is remarkable for the excellence of its colour, for clearness, strength, and perfume; at the nose it has the sweet odour of the violet. It is very slightly bitter; when not aged, it is a little heady, and is much improved by a voyage. It is saleable at prices from eighty-three to one hundred and eight francs the hectolitre, according to the season. Its alcohol is about 12·32 per cent.

The wines called Gallée, Barolles, and St. Foy, enjoy a considerable local reputation, and fetch from thirty-five to forty-

five francs the hectolitre at Lyons. The wines of Chassagny are of good colour, spirituous, improve by age, and sell for thirty-five francs. About fifty thousand hectolitres of superior quality are grown in the arrondissement of Lyons.

Most of the red wines in this district are the produce of the plant called sérine.

The best white wines are those of Condrieu, grown at St. Colombe, about eight leagues south of Lyons. These are of a luscious taste, and have a smell and aroma remarkably agreeable. They keep a long while, and become of an amber colour by age. The same kind of wine is made in the neighbouring vineyards, but all are inferior to that made at Condrieu, though they are sold under the name. The first quality of this wine brings from fifty to a hundred francs the hectolitre. It is eagerly bought up by the merchants, both of Lyons and Paris, as soon as the vintage is over. This wine is made from the vionnier plant.

The red wines of Côtie Rôtie are kept in wood for three or four years. Those of Gallée, Barolles, and St. Foy, five or six. They preserve well in bottle for thirty. While in the wood they are racked once a year.

In the arrondissement of Ville Franche, the most esteemed growths are those of Chesnas, in extent about eighty-five hectares; Fleurie, one hundred and fifty; Brouilly, thirty-two; Julliénas, one hundred and forty-five; St. Etienne, seventy-two. The second growths are those of Chassagny and Bassieux. The first of these wines are delicate, and of tolerable quality; they will keep only about five years in wood, and eight or ten in bottle; while those of the second growths, it is singular enough, are not potable until they are aged, and will keep well twenty or thirty years.

There are other intermediate wines distinguished in the department, such as Adénas, St. Léger, Blaie, St. Julien. The former wines improve on being sent north, and deteriorate on approaching the south. Their mean price is two hundred francs the botte of four hundred and twenty litres. They are racked twice a year while in wood, and fined just before bottling.

In the department of Isère there is some tolerable vine ground. The Isère is part of ancient Dauphine. Its pro-

duce amounts to 368,861 hectolitres, at 34·58⅗ per hectare. The value is about 6,106,079 francs. The best wines are grown near Vienne, but they are of very moderate quality. Two years in wood and four in bottle is all the time they will keep good. There is great neglect shown in the treatment of the vines.

In the arrondissement of Grenoble there is one hilly spot of thirty hectares, named Mas-des-côtes Plaines; it is in the commune of Jarrie. This wine is tolerable after being kept three or four years in bottle; and would be excellent were not the vines much neglected. In the arrondissement of St. Marcellin there is a wine which brings about eighteen francs the hectolitre. There are no white wines with the least reputation in that arrondissement. The white wines sold at a distance, as coming from Vienne, are those of St. Pérai and Condrieu, while the red wines, which pass as wines of Vienne, are grown on the right bank of the Rhone, in the department of that name, at Côte Rôtie, Ampuis, or Cumel. The wines of Reventin are of very ordinary growth; those of Seyssuel are a little better. The fact is, the wines in the country round Vienne, in all directions, may be reckoned together in one class as to quality.

Vaucluse, formerly the Venaissin, in the principality of Orange, has 22,038 hectares in vineyards, and the produce is 362,208 hectolitres, or sixteen per hectare. These are valued at 6,519,744 francs, of which the arrondissement of Orange produces the largest quantity. About 29,000 hectolitres are exported, and 13,000 are distilled. The wine of Châteauneuf is that which is best known out of France of these wines; indeed, it is almost the only growth which is exported, except to the home provinces. Its produce is about 1200 pieces or casks, of ninety veltes each, about two gallons.

In the arrondissements of Avignon and Carpentras, there are wines of two qualities; namely, of Garigues and the hills, and of the plains or deep bottoms. The former have considerable spirit, little colour, and will keep a great while. The latter will not keep so long, having less body, and are in general obliged to be sold annually before the hot weather sets in.

The best wines are those of the Garigues d'Avignon, of Sorgues, of the mountains of Morières, of Gadagnes, of St. Julien, and the white wines, called *clairettes*, of Caumont.

At Mazan, in the district of Carpentras, there are three places where a particular species of wine is made, called *vin de Grenache*. The *Grenache* grape is bruised, and the must being pressed out, it is boiled for the space of an hour. It is then poured into barrels, and one-sixteenth of brandy is added. After it has been well fined, it is sold to the merchants, mostly for consumption in Paris.

The wine of Châteauneuf du Pape, and that of Nerte, both in the arrondissement of Orange, are good wines. They are kept two years in wood, and will keep in bottle a very long time. The price of the wine of Châteauneuf varies from thirty-two to forty francs the hectolitre. The wine of Nerte at two years old, when first bottled, is invariably a franc the bottle. The quantity produced is about fifty pieces or casks, of ninety veltes each. About eighteen francs may be the mean price of the wines of the department. Of these wines, the best next to those already mentioned are the growths of the Garigues of Orange, such as Bruxelles and Peyre-blanche. They are light, clear, and tolerable drinking. The wines of Serignan are of this class. The wines of Claux Cavalier and the flat country are meagre, and soon turn bad. They are consumed by the peasantry.

The department of Gard, part of ancient Languedoc, has 51,198 hectares of vines. The average produce is 1,141,651 hectolitres, at 20·34⅔ per hectare, and is in value 10,949,833 francs. About 308,000 hectolitres are distilled.

The wines of Nismes are in repute in Paris, particularly the St. Gilles and Costière. Upwards of 60,000 hectolitres of wines from Uzès are sent into Burgundy, to mingle with the wines designed for exportation. The vineyard of Lédenon, of about 320 hectares, near Nismes, is the most distinguished; and among these, one in particular, of about 180 hectares, called the Plaine de Paza. The price of the wine is forty-five francs. This wine has a very agreeable bouquet, and is served pure at tables of the first rank in France. The wine of St. Gilles, called *vin de remède* among the merchants, is the best. It is so called, because it is used to strengthen and colour the weaker kinds. The average price

of the St. Gilles wine is only about fifteen francs, and the produce 15,000 hogsheads.

These wines, when not sold on the spot the first year, are kept in wood three, and racked in the month of March the first season, when a particular management is required. They deteriorate after the sixth year in bottle. There is a white wine made at Nismes, said to be tolerably good, called Blanquette de Calvisson. The wines of Uzès, grown on the hills bordering the Rhone, are among the most distinguished in the department. The first in quality are those of Chusclan, Tavel, St. Laurent des Arbres; and the best cellars are those of Codolet. The next wines in order are those of Roquemaure, St. Geniès, Cornolas, Virac, Orsan, Laudun, and St. Victor de la Côte. The surface on which these wines are grown is a hilly side of the Rhone, seven leagues long by two wide.

The mean price of the wines of the first quality is from eighty to a hundred francs the piece, or from twenty-eight to thirty-five francs the hectolitre. The inferior wines grown here are either distilled or drunk on the spot.

The first and second qualities of the foregoing wines are vinous, delicate, and fine. Those made where the Grenache and Alicant grape predominate, are remarkable for their bouquet and flavour, and are reckoned to be as agreeable to the stomach as they are to the taste. They are considered among the best southern wines; and are of a light crimson colour. There is a good vineyard of this kind of wine on the domains of Sauvage, St. Laurent des Arbres, which is called "wine of Hannibal's camp."

If not carefully kept, these wines are apt to get paler after eight or ten years of age.

The white wines of Laudun are much sought after by the merchants: their qualities are dryness, vinosity, and an agreeable taste.

The red wines are kept in wood two or three years, and the white six months. The red are racked once a year, in March. The white undergo this operation three times in six months.

The prices of these wines augment twelve or fifteen francs the first year on each piece, and from twenty to twenty-five the second or third, after which age they are rarely sold.

This district produces commonly from fifty to sixty thousand hectolitres annually.

Besides the foregoing wines in this department, some common kinds are made at Méjannes and Bouzac, which are red. At St. Ambroix there is a sparkling white wine manufactured, which bears good repute. The process of making this wine is singular. After gathering the grapes, they are trodden, and the must left to ferment for thirty-six or forty-eight hours. It is then racked, filtered with brown paper, bottled, and tied with packthread.

In this part of France it is the custom to leave the white wine in the vat with the murk for twenty-four hours, and then to rack off the must for fermentation in the wood.

At St. Hippolyte, there is a common wine made of an agreeable taste, and fine bouquet, but it will not keep. A little very capital wine is made in Alais by the growers for themselves, or for presents to their friends, but it is never sold. The grapes are picked, and the spoiled ones put into a vat separate, and great care is taken in the manufacture.

The department of Haute Garonne, also a part of Languedoc formerly, has a climate which would be thought excellent for the vine, but yet no good wine is made. This may be attributed more to the badness of the management, and the ill choice of the plants, than to the soil.

The department of Ardèche, formerly Viverais, grows 14,929 hectares of vines. The total produce is 224,322 hectolitres, or 15·02$\frac{5}{7}$ per hectare. The value is 3,816,190 francs. These are grown in three arrondissements, Argentière, Privas, and Tournon. The wines of Argentière are transported on the backs of mules into the neighbouring departments; those of Tournon are in high estimation, even out of France.

The wines made in two of these arrondissements will not keep more than two years in wood, and two or three in bottle. Tournon alone produces the good wines of the department. First, the dry white wine of St. Pérai, spirituous, delicate, and of an agreeable perfume. St. Pérai is of three degrees of quality. The first brings sixty francs the hectolitre; the second, fifty-six; and the third, forty-five. The produce is about seven hundred hectolitres. They are delicate wines, of deserved reputation.

The red wine of Cornas ranks, perhaps, with the second quality of Hermitage. There are two degrees of these as to quality. The first sells at sixty, and the second at fifty francs the hectolitre. About nine hundred hectolitres are made.

Next comes the St. Joseph, of the same quality as the Cornas, but held more in estimation. There are two kinds; the first fetches seventy-five francs. Only a hundred and twenty-six hectolitres are made.

There are 6000 hectolitres made of a wine called Mauves, of two qualities, selling at from twenty-five to thirty-five francs. It is of very good ordinary quality.

The red wines, Glun, Châteaubourg, Soyons, Tournon, St. Jean de Musois, Vion, and others, are Rhone-flavoured wines, a little above the second quality of Mauves, and bring twenty-three francs the hectolitre, of which 15,643 are made.

The better wines of Tournon augment in value with their age, though not often to be met with for sale when old. The best will keep three or four years in wood, and fifteen or twenty in bottle.

At Argentière a sparkling or *mousseux* white wine is made by the following process:—A quantity of white grapes is selected, and exposed on planks to the sun, if possible, for four or five days. They are then plucked from the stems and put into a vat, where they are bruised with the hands or feet. They are then left for twenty-four or thirty hours, to give time to the skins to rise and separate the murk from the fluid parts. The wine is then racked into large bottles, which are decanted every two days until the sensible fermentation is terminated. The wine being then clear is put into very strong bottles, which on the following day are corked, tied, and sealed.

In the department of Tarn, part of ancient Languedoc, 20,631 hectares of vines are grown, producing 433,297 hectolitres, or 21·00½ per hectare, valued at 5,411,160 francs. The wines of Albi here are distinguished by those of the hill and plain. The former may be called a tenth more valuable in the market than the latter. These wines are light, are kept three or four years in wood, and will then be good bottled for fifteen more. Though only twelve francs the hectolitre

at the vintage, they fetch eighty or a hundred when of mature age. The best are grown at Caizaguet, St. Juéry, and Cunac. The best wines of the department are those of Gaillac. The finest quality of the red will bear transportation to any distance. The price is twenty-five francs the hectolitre for the first quality of the red of Gaillac, and for the second quality thirteen. The mean price of the best white per hectolitre is thirty francs, and the second quality twelve.

To mature the red wines of Gaillac, six or eight years in wood are required, and ten or twelve in bottle, in which latter state they are rarely sold. These wines will keep good for eighty or a hundred years. It is not advantageous to buy the wines mature in wood from the hands of the grower, unless some stipulated agreement is made beforehand. As already observed in respect to other wines, the price the second year in wood is equal to or above the half of the mean vintage cost in addition.

The department of the Tarn and Garonne, part of ancient Languedoc and Quercy, has 23,168 hectares of land in vines. The quantity of wine is calculated at 264,360 hectolitres, or 11·40½ per hectare, valued at 3,035,700 francs.

Besides the common tart sorts of wine made in this department, of the class called by the French *vinades*, or *piquettes*, reckoned very good of the kind in quality, 196,000 hectolitres of ordinary character are made, and a large quantity is sent to Bourdeaux, to mingle with other wines of less body and colour.

At Montauban the wines are distinguished into those of the hills, the plain, and the cances, or *vins de cances* and *vignettes*. These last are the product of alleys of vines, isolated on ground cultivated in husbandry, most commonly on two lines of approach, and named from that circumstance cances, or vignettes. As these cances draw their nourishment from land which is dressed for the produce of husbandry, the wine is of very bad quality, and in the best years does not bear a price above half that of other kinds differently cultivated. Nothing can be more injudicious than such a mode of growing the vine, and yet custom is paramount over reason, even when its bad effects are so obvious. The price of the best wines is from twenty-five to thirty francs. The hill wines here do not equal those of the plain; the latter

having more body and colour, though they are less delicate than the former; their highest price is from twenty to twenty-five francs the hectolitre. In abundant years these wines sometimes fall as low as five francs. The difference between new and old wine is fifty per cent. The hill wines are bottled at two years old, and those of the plain the third or fourth year. The latter will keep thirty or forty years. The hills of Fran and Beausoleil, and the plains of Villedieu, Montbartier, and Campsas, are the most distinguished red growths of Montauban. The best white kinds are those of Aveyron and Tarn, particularly those called Aussac.

The best wines at Moissac are those of Viarose, the Magdeleine, and Boudon, and those from Pardigues, Villedieu, Campsas, Fabas, with the higher part of Castel Sarrasin. These wines are hill wines. The secondary growths are from the plains and cances, which here, planted in double rows, mark the limits of the fields. The first of the hill growths have colour, strength, and a slight taste of the raspberry, and will keep a long while. Their mean price is eighteen or twenty francs. Those of the second quality sell for ten only. There are two qualities of white wine, one ordinary, and the other only fit for the distillery.

In the department of Aude, also part of Languedoc, there are 36,064 hectares of vines, producing 601,775 hectolitres, at 16·68⅔ per hectare, and valued at 6,326,136 francs. All the wine produced here is consumed in France.

The wine of Castelnaudary is consumed in the arrondissement of that name: a sour, bad-coloured wine, only about ten francs the hectolitre in price. The wines of Carcassonne are nearly all used in the distillery. The wines of Narbonne are used for the same purpose. Being hot and high coloured, they are sometimes taken at table when aged; their prices vary from ten to thirty francs. The prime wines of the department are those of Limoux, which many persons prefer either to Bourdeaux or Burgundy, as ordinary wines. They are of the most agreeable taste, and tolerable in quality, but will not keep. They bring, on the average, fourteen francs the hectolitre.

In the canton of Limoux the wine called Blanquette de Limoux is made from the blanquette grape. The fruit is

transported from the vine to the house of the grower, where it is left four or five days upon boards, that the saccharine principle may have time to reach a perfect state. Women are employed to pick out the unripe or rotten fruit. The grapes are then gathered from the stems, trodden, and the must passed through a sieve, after which it is placed in barrels holding a hundred or a hundred and twenty litres. Five or six days afterwards the wine is cleared, by passing it through filters of cloth, of a fine texture, and then back into the same barrels, which are previously well cleansed. The bunghole is slightly closed, care being taken not to close it securely until there is no longer any sensible fermentation, or for a term of five or six days generally after the barrelling. The wine is bottled at the full moon in the March following. This wine sparkles and effervesces, and, according to local partiality, well-nigh equals Champagne, though few strangers would be inclined to confirm such a judgment.

The department of Herault, a part of Languedoc, has 91,941 hectares of vines, producing 1,713,600 hectolitres, or 18·63⅓ per hectare, and valued at 17,797,407 francs. Cette is the principal port for exportation.

Montpellier produces the wine called St. George d'Orgues, much of which is exported to the North. It is a good wine. An arpent of thirty acres in a dry soil, such as St. George, St. Drézeri, Longlade, and others, gives a hogshead of forty francs' value in wine. But an arpent of good corn land will produce five hogsheads, at forty-five francs, or two hundred and twenty-five francs. Montpellier and Cette are the ports of exportation, and from this department a great deal of wine is exported to Italy, Genoa, and the North. These wines are commonly called in the trade wines *de cargaison*. The wine of St. George d'Orgues has bouquet, lively colour, and spirit. Its price is one hundred and sixty-five francs the muid of seven hectolitres, cask included, or twenty-three francs and a half per hectolitre. The vineyard of St. George's is 510 hectares, and the produce about 3690 hectolitres. The favourite growths are called Serres, Poujols, Cabrides, and those of the road of Celleneuve.

There is a second class of wines called wines of St. Drézeri and St. Christol, where they fetch nineteen or twenty francs

the hectolitre. A third class exists, noted only for spirit, want of fineness, and flinty taste, though in the latter quality equalled by the second class, selling at twelve francs the hectolitre. A fourth class is called Chaudiére wine, from its large proportion of alcohol. Wines to imitate Port, Sherry, Madeira, and Figueras, are made in the Herault and vicinity. They are successful imitations, highly brandied, of the hot wines drunk in England; and, being cheaper, are exported thither by way of Cette, well repaying the experiment as genuine Oporto.

There are here two white wines, the clairette and picardan, so called from the plants which produce them. They are dry, or sweet, according to the soil. The sweet fetch twenty-five francs, the dry seventeen.

The muscadine wines of this department are divided into two qualities. The first comprehends those of Frontignac and of Lunel. These are luscious, fine, spirituous, and sweet; the Lunel is the lightest. Their mean price is fifty-four francs and a half. There are 490 hectares of vine-ground of Frontignac, and only ninety of Lunel, which give, on an average, 4060 hectolitres, or only seven per hectare. The vine-ground of Montbazin, which affords muscadine wine of the second quality, is little more productive, yielding 1600 hectolitres from 160 hectares. The mean price is thirty-seven francs.

The red wines remain three years in wood, are annually racked, and will keep five or six in bottle. The dry white wines will keep from ten to twenty years; the sweet five or six, after being three or four in wood.

The muscadine wines, after being two years in wood, will keep twenty or twenty-five in bottle: when old, they resemble Malaga. Their price does not augment by age more than from twenty to twenty-five francs. There is a red Frontignac, carrying a very high price; only ten or fifteen hogsheads of which are made.

At Beziers there is a red wine named wine of Alicant, produced from a grape so called. The price is eleven or twelve francs, and it is bought up by the merchants of Cette for mingling with other kinds.

Muscatel, or muscadine wine, is grown to the extent of twenty thousand hectolitres at Beziers; the best near Ma-

raussan. It sells for forty-four francs, and is reckoned next after Frontignac and Lunel. There are several other wines, but of a common kind, produced in the same department.

The department of the Var, part of ancient Provence, is supposed to give about 693,448 hectolitres of wine. From the mode of planting the vines intermingled with olives, and the distance of the plants from each other, no accurate estimate can be given. These wines are thought little of in France; but some of them, from their low prices, are exported to places in the Mediterranean. At Malgue the wine of that name is strong, has an agreeable bouquet, and good taste, and forms an exception to the foregoing remark. Second to this wine is that of Rivesaltes (not that so celebrated, which is made only in the Pyrénées Orientales); very little of either of these kinds is grown. The climate favours the vine, but the cultivators are grossly negligent.

The name of wines of the Gaude is given to those which are the produce of Cagnes and St. Laurent du Var. They are hardy, and will keep long. There is a wine at Antibes which is considered delicate and agreeable to the palate, but it ranks only as an ordinary wine, and only sells for forty or fifty francs when long kept in bottle.

The department of the Pyrénées Orientales, formerly called Roussillon, has 29,913 hectares of vines, giving 343,963 hectolitres of wine, or 11·50 per hectare, valued at 7,164,612 francs, the principal part of which is produced in the arrondissements of Perpignan and Céret. A great quantity is exported from the neighbourhood. Much goes into Spain, which borders upon the department. Paris, Italy, Denmark, and Prussia, also take these wines. The merchants buy the muscadines of Rivesaltes, a town about four miles from Perpignan, and nearly all the white wines, either to export pure, or to mix with others.

The quantity of Rivesaltes muscadine made is about sixty-five hogsheads per annum. When sold it bears a very high price. It is lighter on the stomach than Frontignac, and its sweetness is peculiarly agreeable on the palate. The soil on which it is grown is dry and granitic, and appears as if it were incapable of supporting vegetation of any kind.

The vines most cultivated at Rivesaltes, besides the muscadine, are the grenache, mataro, and crignane, for the choicest

exported wines. The pique-pouille noir, the pique-pouille gris, the terret and blanquette, give wine clear and good, but the wines destined to keep require nicety in selecting the plant. The mataro is the regular bearer as to quantity; the other sorts are sometimes abundant, often scanty in produce, and for the most part very irregular in bearing. In general, however, the vineyards are planted with ten or twelve species of plant, which are more or less esteemed for mixing. The new vineyards are formed wholly of the crignane, the fruit of which is black, saccharine, rough to the taste, and full of mucilage. The mataro, of which others are exclusively made, is very black, more saccharine, and gives out much spirit. The black grenache, of which entire vineyards consist, is remarkably sweet, spirituous, strongly impregnated with aroma, and is used to temper the fire of the other species. The mixture of these three kinds, in which the last species forms a third, and the second a quarter part, gives a product of late years assorting best with the character of the wine in demand, and therefore is that which cultivators labour most to carry to perfection. There is a species of grape called the white grenache, of Rodés-en-Conflent, a most valuable species, little cultivated, because it requires considerable time to bring it to maturity. The muscadine of Rivesaltes is made from this plant, as well as from three varieties besides, the Alexandrian muscadine, the round white, and, before all, the St. Jaques.

The vintage of the muscadine grape begins at the end of September, or the first week in October, and is performed at two separate periods. The time is always chosen when the dew is dried up, and the grape and earth are become warm from the solar rays. At the first gathering, the ripe grapes only are taken, and placed separately at the foot of the tree, where they are left until they are dried or shrivelled up, after which they are taken away, and immediately replaced by the second gathering. The fruit is then trodden and pressed. Some suffer the fruit to dry upon the stem before the gathering takes place. Others take it home, and place it on hurdles, exposed to the sun's rays; while it is the custom with a few to keep it five or six days, piled up in wooden vessels.

The must produced by the treading and pressing is very thick. It is put into barrels to ferment. Very frequently the wine is delivered to the merchant after being in the barrels only fifteen or twenty days, and without being

cleared of the dregs. If not sold, it is racked a month or two after the pressing, and the dregs are then found to be very considerable.

The greater part of the other white wines are made from the species of grape called blanquette, which is picked out at the vintage from the red fruit with which it is mingled. Rivesaltes furnishes most of these wines. The vintage is completed at one, and not, as with the muscadine grape, at two pickings. Some growers leave the whole, with the stems and skins, to ferment twenty-four hours in the vat. There are two qualities of these wines, one dry and the other luscious. The same grape produces both; the soil alone causing the difference. The soils abounding in stone and quartz, such as St. Cyprien, Panissac, Lacombe-Clobal, Mas de la Garigue, and Lejas, at Rivesaltes, give the luscious white wine. The soils purely argillaceous, or calcareous, yield the dry. As the last kind is little in demand, they try to obtain a luscious wine from the blanquette grape, which is gathered when well ripened, and exposed on the warm earth to the full action of the sun for ten or twelve days. Eight hundred hectares, planted with the blanquette, each produce about twelve hectolitres of wine.

Good Grenache wine is made in the communes of Banyuls sur Mer, Collioure, Port Vendres, and some in the canton of Rivesaltes. This wine is not usually suffered to ferment on the murk. If it is suffered to do so at all, it is never for more than twenty-four hours. The fermentation takes place in the cask, and when it is eight or ten years old, it is soft, generous, and delicate. When it is suffered to ferment on the murk for twelve or fifteen days, the wine is longer clearing itself, is more generous, and acquires in age a fine topaz colour. It is ten or twelve years attaining full perfection. It then takes the designation of *rancio*, or rusty, or, as some call it, tawny. It is distinguished from the wines of Roussillon as commonly denominated, by its lusciousness and particular aroma. Only about three hundred hectolitres of Grenache wine are manufactured. The residue of the grapes grown is thus mingled with the other species in the vats.

Malvasia and Macabeo wine are made by one or two persons in the canton of Rivesaltes with the grapes of those

names. Very little is manufactured, simply as a family provision; they are rarely met with for sale.

Red wine is seldom made in this part of France in open vats, but in large vessels, called *tonneaux à portes*, into which the product of the press, murk and all, is introduced by a square opening. It has a tight cover, in the middle of which is a hole, to give vent to the carbonic acid gas disengaged during the fermentation, favouring the condensation of a great part of the gas, which fills the void left between the top of the vessel and the contents. Thus, by pressing on the murk, it prevents a too rapid fermentation, but slackens when the fermentation is complete, preserves the aroma of the wine and a part of the alcohol, which exhale with difficulty, keeps from the action of the air the upper part of the contents of the vessel, which is constantly bathed in the liquor, prevents its acquiring acidity, and contributes to extract the colouring matter of the skins. When the wine is deemed perfect, it is drawn off by a cock, and the murk is taken out by a door in the bottom of the vessel towards the front. The door is supported and crossed by two transverse stays, on the exterior and interior, which are secured by strong screws.

The wines of Banyuls, Collioure, and Port Vendres, are commonly purchased at the time of the vintage by the Paris merchants, who generally attend for that purpose. These merchants buy most of the other growths which go out of the department. The wines are not drawn off before the sale, when it is not delayed until the March after the vintage, as at that time the red wines are always racked. In general it is done but once, and then only for the wine which is designed to keep long. Some growers, however, do it a second time in the March following, but always when the weather is dry. It is then kept until it takes the denomination of a *rancio*, whether the barrels have been tapped or not. They are careful, however, to put them in a cool place, and as far as possible from a road or street, where heavy carriages pass. The longer the wine remains in the cask the better it becomes. They take care to preserve the tartar, which forms an interior lining, and prevents evaporation through the pores of the wood. A common custom with such as keep the wine by them to acquire age is, every year

to draw off some bottles, and replace them with younger wine of the same vineyard. The new wine is introduced with a funnel and pipe, to avoid, as much as possible, any agitation of the fluid.

The white wines, and the muscadines, are bought on the dregs immediately after the vintage. They are not racked but when they are to be sold; and when not sold till March, as in the case of the red wines, they are drawn off. It is rarely the case that they are racked a second time before the sale. When intended for keeping, they are racked in the months of March the two first years. They give themselves no other concern about them, and never use anything to fine or clarify.

The red wines remain ten or fifteen years in wood; at that age they have a golden tinge, and the *rancio* taste, but they are not yet at their full perfection. They constantly deposit, and clarify better in the wood than the bottle. When, after being fifteen years in wood, they are bottled, they for some time show a deposit so great, that even then, before bringing them to table in France, it is customary to decant them.

The white wines are bottled at two years old, and the muscadines at four. The white wines will keep four years in bottle; after that time they lose their virtue.

The red wines and the muscadines will keep more than a century, and still gain in quality. A French gentleman, on the authority of Cavaleau (M. de Passa), had, between thirty and forty years ago, some in his cellar that was made the year of the treaty between France and Spain, 1659. He said he hoped to leave a portion of it to his children in equally good condition, though the best part of two centuries old.

The wines of Roussillon are generally of a deep colour. One kind is luscious, spirituous, and rich in aroma, used principally for exportation. The other species is of a deep colour, but of a less generous quality, and is consumed at home. As in other places, the same kinds of wine are of various qualities, and display a difference in their taste, colour, and strength, according to the nature of the soil, and the species of the plant predominating in the vineyards where they are grown. These wines are much drunk in the north of Europe. Inglis, in his travels in Norway, alludes to them as imported there in an unadulterated state—that is, not

brandied to imitate wine of Oporto. Though it resembles port, he observes that it is far more wholesome than a large part of the port wine, or what is sold as such, in England. Some of the wines of the first class are grown in the communes of Banyuls, Collioure, and Port Vendres, before mentioned. Others, of which a part of the growths is exported, come from the same locality, and from the neighbourhood of Perpignan. They are of deep colour, and very sweet, but when aged they take a golden hue, and gain a most delicate and agreeable taste. They have body and fineness, and lose their deep hue in eight or ten years; hence their golden colour, or change to tawny. They have the peculiar quality that, when once separated from their dregs, they are not liable to be spoiled, though the casks or bottles remain but partly filled. The mean produce of the three vineyards is 15,807 hectolitres.

A wine from this department has been very recently introduced into England, It is a firm-bodied wine, of a very deep colour, with a fine violet tinge, good bouquet, and rich, racy, mellow flavour. The growths at ten or a dozen years from the vintage much resemble good port of an old vintage, but fresher. They are smooth on the palate, and have the merit of not causing acidity in those temperaments which are subject to it as readily as port. This wine is not a factitious French port from the harbour of Cette, or it would not have merited notice. It is a genuine production called Masdeu, from the vineyard which produces it, between Perpignan and Collioure. The vineyard once belonged to the Knights Templars, and afterwards to the Hospitallers. It is mentioned in a Latin work as long ago as 1273, when the estate was sold by the monastic house of St. Salvador de Cira. The buildings of the Templars are now converted to farm purposes, and contain the cellars where this wine is deposited. It is shipped from Port Vendres. Yet this wine, five hundred years old, was new to England till 1838. The house of Robert Selby imported in one year into England, between 1836 and 1837, no less than 1648 pipes of this wine, and it may be said to be fixed in the English market. It is shipped from Port Vendres to England with the addition of a small quantity of brandy, and, like all the wines of that part of France, will keep to a great age. Firmness and vinosity of a very perfect kind are its charac-

teristics, while it so much resembles wine of the genuine kind of Oporto, that the drinker of Portugal wine might easily imagine he partook of his favourite beverage. The vineyard of Masdeu is the property of the well-known bankers, Messrs. Durand. The grapes used are principally the Grenache, Carignan, and Mataro, all black. The vines are grown on the plains or on gentle slopes open to the south. The soil is stony, and the vines are set in the quincunx order. The produce is about six or seven hogsheads on the English acre. The wine is fermented in the large vessels or tuns already described. It is kept in vats of considerable size for twelve months before it is put into casks, each vat holding two or three thousand gallons. When new, it is deep-coloured, sweet, and full of body.

At Collioure, which is situated about a league from Port Vendres, where the Masdeu above mentioned is shipped off for exportation, both dry and sweet wines are made of very good quality. The vineyards are on the first slopes of the bases of the Pyrenees, and the soil schist, with a slaty gravel. The hill vineyards are all planted terrace-fashion. The produce is less than on the plains; manure is never used. Near Collioure the *Cosperon* wine is made, and is a rich *liqueur*. The grape being rendered very mature, is pressed, but not fermented, and to the must a very large proportion of brandy is added. This wine is nearly, if not entirely, consumed in France.

The wines of the communes of Rivesaltes, Espirande l'Agly, Salses, Baixas, and Peyrestortes, as well as that of Torren-Milar, near Perpignan, are wines of the first quality, and though inferior somewhat to the former, equally come under the denomination of wines of Roussillon. They are known as "wines of the plains" (*vins des plaines*). They are longer losing their colour than the preceding wines, and do not, therefore, become *rancio* till they are two or three years older, though rarely kept for that purpose, except at Lejas, in the commune of Rivesaltes. These wines are of good consistence, and of real vinous strength, qualities always belonging to the wines of Roussillon. They are high-coloured, fine, luscious, and heady; characteristics which they preserve in age. The mean product of the vineyards is 69,540 hectolitres, at twenty-eight francs. There are

about 44,000 hectolitres of wine of a second quality, at twenty-four francs. There are also wines that are still inferior, but light and delicate, grown at Terrats, Corneilla la Rivière, Pezilla, Latour, and other places, and wines inferior to them, but they are not exported.

There are 10,800 hectolitres of white wine in this province, which are of the first quality, and sell for thirty francs. About three hundred hectolitres of Grenache, at forty francs, and the same of muscadine, at eighty.

The gradation in the prices of the red wines of the first quality increases so much, that at eight years old they sell for a hundred and fifty francs the hectolitre, and choice growths frequently reach two hundred. The price bottled, which is only done when orders are given by the merchant, is from one franc and a half to two francs the bottle. Very old has been known to bring six francs. The gradation of muscadine is nearly in the same proportion for the first three years. Old brings three francs the bottle, but it is rarely thus preserved, except in families. The gradation in the Grenache wines is the same as in the red. The white wines are not kept, but exported or consumed immediately in the province.

The price of the red wine of Roussillon is not regulated by the scarcity or abundance of the crop. The cost is often higher after an abundant vintage than after a middling one, for it depends upon the abundance of the crop in the north of France and on its quality. In case of a middling vintage in the North, the wines of Roussillon, from their strength, are bought up to mingle with them, and impart to them body and flavour.

The department of the Basses Pyrénées, formerly Béarn, Navarre, Basque, and the Pays de Soule, produces some wines of good quality, generally white; in all 333,330 hectolitres, valued at 5,270,433 francs. Of these wines Pau affords the best; the commune of Gan also produces wines, styled *de primeur*. In this latter commune there is a little vineyard producing three hectolitres only, the wine of which sells for six francs a bottle. It is called Gaye Sicabaig, from the name of the owner. Before the revolution it belonged to a member of parliament at Pau, who sent the produce every year to the king. It exhibits a remarkable instance

of the unknown qualities of the soil, which give a superiority to one spot over all around it, though to the observer the same in every respect, as far as human knowledge can penetrate.

The prices of the wines of Pau vary from twenty-five to seventeen francs the hectolitre. The wines styled *de primeur*, being of the first class, and keeping a long time, their value augments in proportion. At fifteen years old, the first growths of Jurançon and Gan bring two hundred francs the hectolitre. A wine-grower at Gan, M. Pons, sold a barrel of his wine, thirty years old, for twelve hundred francs. It must be admitted that great attention is given here to the manufacture of the wines. The vintages are frequently prolonged to the end of November, and even December, at Jurançon, particularly for the white wines, which are superior to the red, and have a perfume like the truffle.

The department of the Hautes Pyrénées, formerly the southern part of Gascony, is of a soil in general too elevated to grow very superior wines; yet 278,063 hectolitres are produced in this department, averaging 19·45 per hectare. These wines bear a low price, and are of low quality. Those of Argeles and Bagnères bring only ten francs the hectolitre. Those of Tarbes fetch eighteen francs the hectolitre, and are the best; generous, coloured, and tolerably clear. They are produced in the canton of Castelnau-Rivière-Basse, under the general denomination of wine of Madiran (*vin de Madiran*). They are not sold until they attain the age of four years, and those of the first quality alone are bottled. They will keep well for twelve years; after that period they alter much, becoming dry and heady. Some have been known to keep for twenty years. The want of a facility of carriage makes these wines little known out of the department. Some of them were formerly exported to the colonies from Bayonne.

There are some poor white wines made in this department, but they will not keep above a year or two.

WINES OF THE GIRONDE.

Under the denomination of the wines of the Gironde are included those of the districts in the vicinity of Bourdeaux, in

some directions for many leagues in extent. Of all the wines of France these are most familiar to foreigners beyond the seas, being exported in the largest quantities. The department of the Gironde is part of ancient Gascony, and is rich in the produce of the vine. In the quantity produced, in the variety, in quality, and value taken together, it stands the first district in France, and in a commercial point of view it is the most important.

With a minuteness, which the reader will readily appreciate, details respecting the wines of Bourdeaux are given here on account of their being so much used in England, and curiosity being on that account more alive respecting them than any of the other wines of France.

The extent of vineyard ground in the department of the Gironde is no less than 137,002 hectares, or 342,505 acres. Some state that the number of hectares of vineyards is 141,221, embracing every kind and sort of vine cultivation used. Of these, 46,931 appertain to the arrondissement of Bourdeaux alone. The arrondissement of Bazas has 5486 hectares of vine ; Blaye, 16,830 ; Libourne, 30,996 : Lesparre, 18,050 ; Réole, 18,709. Their total product in wine is 2,805,476 hectolitres, or 73,643,725 gallons, at 18·72⅔ per hectare ; a prodigious quantity, valued at no less a sum than 49,177,454 francs, or 2,007,398*l.* sterling. Of this, one-half in value is grown in the arrondissements of Bourdeaux and Lesparre alone. In some years the produce has reached 360,000 tuns.

Of the 2,805,476 hectolitres above mentioned, 1,864,461, or 204,436½ tuns are disposable, the rest is distilled, or drunk in the province. It is computed in France that a third more in quantity, beyond that grown in the province, is exported from Bourdeaux. This is drawn by the merchants from Spain, and from other departments of France, such as the Lot, Lot and Garonne, Haute Garonne, and others, and is mingled with the genuine wines of the Bordelais for the foreign market ; it therefore must be added to the wines exported from the department. The traffic in these and other wines by sea from Bourdeaux is very great, being nearly 500,000 hectolitres per annum.

The value of wine estates is very considerable in this department. The Mouton estate, of 135 acres English, brought,

in 1830, 356*l.* per acre. The Lafitte, of 262 acres, brought 183*l.* 4s. per acre as long ago as 1803. Every acre of the Medoc estate is worth from 60*l.* to 70*l.*, taking the entire average.

The districts or arrondissements on the right bank of the Garonne come first, one of which, that of Libourne, is situated on the banks of the Dordogne, going from the north-west to the south-east. Of these districts, that of Blaye produces 6215 hectolitres of wine, of one hundred and eighty or two hundred francs the tun;* the rest may average one hundred and fifty. The wines of the canton of Bourg, or Bourgeois, are not so deeply coloured as those of Blaye, but they are of good quality. They should be kept eight or ten years before they are drunk. They were once esteemed above those of Medoc, though now they rank in repute only with the inferior kinds of the latter class. In a good year they have strength, a fine colour, and, by keeping, lightness; together with a taste of the almond. The vine plants most cultivated in the canton of Bourg are, the merlot, the carminet, the manein, the teinturier, the petite chalosse noire, and in poor soils the prolongeau. The le petit and gros verdot are cultivated in the Palus, or alluvial land situated between the Garonne and Dordogne, consisting of river flints and alluvial deposits. Hence the "wines of the Palus." The Palus of Dordogne produces wines superior to those of Libourne, which are from a light soil, and of light quality. These latter wines are grown at Castillon, St. Foi, Branne, Coutras, and Guitres, in that arrondissement.

The hill wines, or *vins de côte*, manufactured in that neighbourhood, are of a superior quality to the foregoing; such are those of Fronsadais, Neac, Lussac, St. Estèphe, De Puisseguin, and Montagne. With this quality of wines also may be ranked those grown on the level grounds where the soil is sand and gravel, with earth and calcarious elements. The land in which it is presumed the most silicious matter exists, seems the most favourable to the vine in the Gironde. The wines in repute, such as those of Pommerol and of the environs of Libourne, as well as some places in Lussac, Absac, and St. Denis, are grown in sand and gravel. These belong to the most distinguished hilly sites, as also those of St.

* This is a nominal measure here of four barrels or hogsheads.

Emilion, Cenon, and Barbe-Blanche, near St. Emilion, considered the finest. Among this class, Cenon and St. Emilion are most regarded. The wines grown on pure quartz and sands with alluvial matter, are of a white colour, and very intoxicating. In respect to site in Medoc, the south-eastern declivities of hills are preferred.

But two names are given to different qualities of wines from the hills in this district, *vins fins*, or fine wines, and *vins de côtes*, or hill wines. Of the first, 51,660 hectolitres may be reckoned the average produce, and of the second, 103,320. The common wines, in addition, in the same district, may amount to 154,980 hectolitres. The common wines bring from a hundred to a hundred and fifty francs the tun, including the Palus wines. The hill wines from one hundred to one hundred and fifty, and the fine wines from two to three hundred francs in abundant years. In ordinary years a third more, and in years of scarcity nearly double. The common red wines are bottled a year or two after the vintage, and are in perfection in three or four. The wines of the hills are bottled three years after the vintage, and are in perfection at ten, while those of St. Emilion, Cenon, Barbe-Blanche, Grenet, and Pommerol, are not bottled for four, five, or six years, and increase in excellence for twelve more.

The age of wine is reckoned in Bourdeaux by *feuilles*, or leaves, the number of times the vine has flowered since it was made. The vine cultivation of the Gironde, in Medoc particularly, is very superior. The vines are kept low, and trained in espalier fashion. In the Palus, they let the tree mount to five or six feet. In the district between the two seas, the vine is planted of late years *en jouailes*, or in furrows, leaving seven-eighths of the land for corn, yet yielding more wine than in the old mode. The quality of the wine is always considered to depend on the pains taken in the cultivation of the plant. Sauterne has gained its reputation by modern labour. The vineyards have now four ploughings, and three spade turnings, the vines being in single rows.

The St. Estèphe wine has an aromatic, violet-flavoured perfume. That of Cenon is fine, light, and spirituous. St. Emilion has plenty of body, and superior flavour and fragrance; and, as well as the wines of Bourg, Tourne, and their vicinity generally, acquire flavour by age, and a more perfect

bouquet. The shipping price of the good is about two francs the bottle.

Every year for five years after being bottled, the hill wine gains fifty francs per tun in price, and sixty or eighty francs each succeeding year. The fine wines, and those grown on the choicest spots, gain yet more; so that, when eleven or twelve years old, they fetch from two thousand to two thousand four hundred francs the tun. The prime St. Emilion, Cenon, and Barbe-Blanche, above their twelfth year, sell for three francs and three francs and a half the bottle.

The best hill wine is made with the grape called noir de pressac, the bochet, and the merlot and carmenère.

The arrondissement of Réole produces only common wines, at the price of a hundred and thirty francs the tun. The best of these wines come from the communes of Aubiac, Verdelais, St. Mexant, St. Andre du Bois, and, above all, Caudrot.

The red wines in the arrondissement of Bazas bring generally a less price still, only about ninety-five or a hundred francs.

The chain of high hills which extends itself along the right bank of the Garonne, from Ambares to the arrondissement of Réole, produces wines known as the hill wines of commerce. These are good ordinary wines, and little more. They acquire quality by age, are in general firm and of good colour, and, out of France, are principally consumed in Holland, Denmark, and the ports of the Baltic. In the class of hill wines the merchants of Bourdeaux comprehend also the vineyards on the Dordogne, from Blaye to Fronsac; but only as ordinary wines, with the exception of St. Jervais, St. Andrè de Cubsac, St. Romain, Cadillac, St. Germain, and St. Agnan, which produce somewhat better kinds. The communes of Bassens and Cenon give the best hill wines, which are most of all distinguished by their colour. Those of Floriac, Bouillac, and La Tresne, are not so good, having a slight earthy taste. The wines of Camblanes resemble those of Bassens, have more body and colour, but are less capable of keeping. Quinsac, Cambes, and Baurech produce but little red wine of tolerable colour, and, for the most part, of ordinary quality.

The Palus or plain grown wines have been already alluded to. The vineyards are situated on rich levels upon the banks

of the Garonne and Dordogne. Formerly the best vine plants only were cultivated in them, but now, plants more common, but more productive, have been substituted. This is to be lamented, for the good quality of the wines has deteriorated in consequence. These wines at present are, notwithstanding, high-coloured, and free from any earthy taste, but are generally a little *mous*, as the French style it, and rough; imperfections excused from the greatness of the produce. By age, or a sea voyage, they acquire an agreeable bouquet, much body, and flavour. They should be kept seven or eight years in wood, to obtain their full quality; after which they will remain good a long time in bottle. The vine crops of the Palus, or level districts, are more uncertain than those of other soils differently situated. The vines are supposed to be rendered more sensible of atmospherical changes, from being in humid low land during winter.

The Palus district is classed in five divisions. The first is Quéryes, on alluvial land, upon the right bank of the Garonne, opposite Chartrons, one of the suburbs of Bourdeaux. The wines grown there are reckoned the first in quality of the class. They have a deep tinge, much body, and acquire by age an agreeable bouquet of the raspberry. They are often mixed with weak wines, to improve their body and colour.

Bassens and Mondferrand grow the second class of Palus wines, and are from forty to sixty francs per tun less in price than those of Quéryes. The third class is grown in the communes of Ambès, Bouillac, Camblanes, Quinsac, Les Valentons, St. Gervais, and Bacalan. The fourth, in St. Loubés, La Tresne, Macau, Beautiran, and Ison. The fifth in St. Gervais, Cubsac, St. Romain, Asque, and the Isle St. Georges.

All these communes produce wines of good body, fine, and high coloured, capable of bearing a sea voyage well. They are generally distinguished as wines *de Cargaison*, because they are so largely exported. The mean prices are three hundred and thirty, two hundred and sixty, and two hundred francs per tun.

The district styled the Graves, from the soil being gravelly, composes another vine growth on the left bank of the Ga-

ronne. This is found extending three leagues to the south, and two to the west of Bourdeaux. In this district the merlot, three varieties of carbenet, or carmenet, the verdot, melbeck, balouzat, and massoutet grapes, produce the delicate Graves wines. They are generally fuller in body, and more coloured and vinous than the wines of Medoc, but the last are preferred for bouquet and flavour. They are kept six or eight years in the cask, according to the temperature of the year in which they are made. They keep a long while, and in twenty years lose nothing of their good quality.

There are five sites where the better wines of the Graves are grown: Merignac, Léognan, Villenave d'Ornon, Talence, and Pessac. The first produces about a thousand tuns of agreeable red wine; while Léognan gives seven hundred tuns of wine more firm than that of Merignac, and said to taste a little earthy. These have a good body and colour, but are less smooth on the palate than the others. Formerly, these wines were exported to Ireland, but at present they are sent principally to the north of Europe. About five hundred tuns of red wine are grown at Villenave d'Ornon, but it is not equal to that of the foregoing districts, having less body. The excellent qualities of the white wine made there have gained for it a reputation well deserved. Talence produces about eight hundred tuns of red wine, ranking with that of the second or third quality of Passac. This last district of the Graves yields from a thousand to fifteen hundred tuns, generally of a lively and brilliant colour, with more body than the wines of Medoc, but less bouquet, raciness, and fineness. The first growth of this noted commune is Château Haut Brion, half a league south-west from Bourdeaux. The wine here is considered equal to that of the three first growths of Medoc, although its character has been injured for some years from the employment of too much dressing. The wines of Haut Brion are not bottled until six or seven years after the vintage, though some of the first growths may be drank at five years old. The flavour resembles burning sealing-wax; the bouquet savours of the violet and raspberry.

Gradignan, Martillac, La Bréde, Beautiran, Castres, St. Selve, and Portets, to the south of Bourdeaux, furnish the wines known as the small red Graves wines *(petits vins rouges des Graves)*. These are ordinary wines, some of which im-

prove greatly by age. The merchants of Bourdeaux comprehend under the foregoing name the common wines of Cauderan, Bouscat, Bruges, and Eysines, generally sold for consumption in that city.

The next, and fourth district of the Bordelais, is that of Medoc, the most important of all for its extent and the quality of its produce. Its shape is that of a large triangle, of which the summit is acute, formed by the left bank of the Gironde, close to its mouth, and the western shore of the ocean at the entrance of the Gulf of Gascony. The base is an oblique line drawn from the left bank of the Garonne at La Teste, passing by Blanquefort.

The Medoc district is an immense plain, divided on the side of the Gironde by small hills, which produce the best wine. These hills are covered with a light gravelly soil, intermingled with flints in great quantity, of an oval form, about an inch in diameter, and of a whitish grey colour, from one to three feet deep, below which is found a dry and compact red earth intermingled also with flints. The second species of ground occupied by vineyards is a gravelly sand. At eighteen inches from the surface, in some parts of this soil, is found a bottom of clay, or potter's earth; in other places, dead sand. A mixture of gravel and soil often occurs, called the *alios*, bounded with ironstone, not very favourable to the vine; in fact, it must be penetrated to make the vine succeed well, that the moisture may descend beyond the roots. Parts of the same vineyard are often good, and often untractable from no discoverable cause. In no other place is the earth more varied in quality or in product. The estates also are much divided.

The carbenet, carmenet, malbeck, cioutat, pied de perdrix, and verdot, are the plants most cultivated in the plain of Medoc. The wine, when in perfection, should be of a rich colour, a bouquet partaking of the violet, very fine, and of a very agreeable flavour. It should be strong without intoxicating; revive the stomach, and not affect the head; leaving the breath pure, and the mouth fresh. A sea voyage, fatal to some of the best wines of France, does not alter the quality of these fine wines of the Gironde, but, on the contrary, it is observed to ameliorate even those of an inferior class. The wines of Medoc, however, have their defects;

one of the principal of which is, that most of them tend to decomposition in sixteen or seventeen years, though some growths will last ten or twelve longer. The expenses of wine cultivation in Medoc are very considerable. A vine-dresser gets 1f. 60c. per day. An experienced labourer, not domiciled, from 2f. to 2f. 25c. The wine-press men have 50c. more than others. The vineyards are often cultivated by a wine-dresser at task-work, who receives 150f. in money, half the cuttings, four barrels of *piquette* * wine, a lodging, and a small garden. On the Graves, the bargainer or *prixfaiteur* has 380f. as well as cuttings, wine, lodging, and garden; but then he does the work of both the plough and spade.

The first commune of Medoc, two leagues from Bourdeaux, descending the river, is Blanquefort, producing a thousand or twelve hundred tuns, of which four or five hundred are white, generally known as white wines of the Graves. They are for the most part dry and agreeable, and do not want strength. The first growth of this district is Dariste, formerly Dulamon.. The red wines are of an intermediate quality, and most of them exempt from that earthy taste which is too perceptible in some of the hill wines, as well as in those of the low lands. Their colour is good, and they have a bouquet, which is not developed until they have been some time in bottle. They were once exported to America, but are now consumed for the most part in the north of Europe. The second commune, Ludon, produces five hundred tuns of red wine, superior to that of Blanquefort. This superiority arises from the nature of the soil, which is for the most part gravelly, yet some portion of it, though a small one, is marshy and alluvial. The Dutch are very fond of these wines, because they unite the qualities to which they are partial: high colour, raciness, and an aromatic taste; and they are utterly free from tartness, a defect in a Dutchman's view for which nothing can compensate.

Macau is the next commune, situated in a plain, two-thirds of which are Graves, and one-third Palus, or alluvial. The wine produced here is neither as agreeable nor racy as that of Ludon. It has, however, a deeper colour, and good body. Macau produces seven or eight hundred tuns of red Graves,

* A small wine.

and about two thousand of Palus, much inferior in quality to the Graves. Labarde, the next commune, generally gravel or sand, produces three hundred, and sometimes four hundred tuns of superior wine to that of Macau, easily observable in its body, colour, and bouquet. Cantenac, the fifth commune, is remarkable for the excellence of its wines, of which the product is from one to two thousand tuns. These wines are of exquisite taste, rivalling the best in Medoc, whether for the bouquet or raciness which characterises them; besides which, they have colour, body, and are agreeably aromatic.

Margaux produces from a thousand to twelve hundred tuns. The soil of this renowned commune is gravelly, intermixed with a great number of flints. Its vines are the most esteemed in the whole tract. In this commune is grown the famous first quality, Châteaux Margaux. In average years about eighty tuns of the first growth, and twenty of the second, are all which is made. The wines of Margaux, when in perfection, in a favourable year, have great fineness, a rich colour, and a soft bouquet, balmy to the palate. They have strength without being heady, and leave the mouth cool. These wines are well known in England, though the wine of the first quality is rarely met with genuine in this country. It is in Margaux also that the wine called Rausan is produced.

The wines made in the communes of Soussan, Arcins, Lamarque, Cussac, Le Taillan, Lapian, Arsac, Castelnau, Avensan, Moulis, and Lestrac, differ from each other, though in no very remote degree. Those of them which are exported go principally to Holland and the north of Europe. These communes are all in the Medoc district, and in the arrondissement of Bourdeaux.

St. Julien de Reignac, in the arrondissement of Lesparre, is the eighteenth commune of the Medoc vine country. It produces a thousand or twelve hundred tuns of wines, very inferior to those of Margaux. They have a peculiar bouquet, by which they are distinguished from all the other wines of Medoc. Kept five or six years in wood, they attain the character of good wines. The inferior growths of La Rose and Léoville are the produce of this commune.

The nineteenth commune of Medoc is St. Lambert, pro-

ducing six or seven hundred tuns of good wines of nearly the same quality as those of St. Julien. In this commune is made the famous wiue of Château Latour. This wine is distinguished from that of Château Lafitte by its superior body and consistence; but it should be kept in wood at least a year more than the Lafitte to attain a proper maturity. This is a favourite wine in England; it is produced on a soil of saud and gravel, and in favourable years is uearly all purchascd for the British market. The price is about the same as that of the Château Lafitte and Château Margaux. In ordinary years from seventy to eighty tuns ouly are made, rarely more than a hundred in the most abundaut, at least of the first quality. It is less fine than Lafitte.

Pouillac, another celebrated commune of Medoc, produces from three to four thousand tuns of a wine racy and full of bouquet. In this commune is grown the celebrated Château Lafitte, a wine surpassed by none of its rivals. About a hundred tuns of the first quality only are annually produced, and twenty or thirty tuns of inferior growth. Nearly all the Château Lañtte, and indeed most of the other growths of this commune, are consumed in England. It is lighter than Château Latour, and may be drauk somewhat less in age. The wine next in quality to Lafitte is that of Moutou, or Branne-Mouton, of which the produce is from a hundred to a hundred and forty tuns.

St. Estèphe produces four thousaud tuns of wine, of a different quality from all the other Medoc wines. Light, agrceable, and aromatic: they are generally bottled after being three years in the cask. St. Julien uearly the same. The wine of St. Seurin de Cadourne furnishes about three thousand tuns annually of iudiffereut aud very uncqual wines in respect to quality.

The wines of the district of Haut Medoc are all compreheuded in the foregoing list. Thc prices fluctuate greatly, being dependent upon the season; so that in favourable years wines bringing thirty pounds a hogshead will not bring five in those which are unfavourable. The fine wines in good years fetch for shipment 14*l.* 10s. per hogshead, and average years about 6*l.* In bottle from two to six francs. Those called in the couutry *le derrière du Haut Medoc*, are St. Laurent, St. Sauveur, Cissac, aud Verteuil, geuerally wines

of tolerable quality. About three thousand tuns in quantity are made, some of which are exported to the north of Europe. The soil that produces these wines and the foregoing is light and stony, with quartz. Below is found ferruginous pudding-stone, or *alios*. The exposure is little regarded. The more gravel the better wine. The vines are planted in rows, three feet asunder. The vines bear here at five years old. There are vines in Pouillac two hundred years old, but they are upon dry soils to a great depth. Manuring is repeated every ten years to the very roots. The communes of Taillan, Lapian, Arsac, Castelnau, Avensan, Moulis, and Lestrac, already alluded to, come under the same general name and treatment.

The Bas Medoc is applied to the wines grown in the communes of St. Germain, Lesparre, St. Trélody, Potensac, Blaignau, Uch, Prignac, St. Christoly, Civrac, Bégadin, Gaillau, Queyrac, Valeyrac, Jau, and St. Vivien; the quantity of the whole produce varies from four thousand eight hundred to six thousand tuns. These wines are, for the most part, touched with an earthy taste. In good years they are reckoned agreeable wines for exportation, when well selected, as their quality improves by age.

Many vineyards, not mentioned above, produce an ordinary wine consumed in the province. The mean product of the red Medoc wines is 37,660 tuns, or 343,459 hectolitres.

The wines of the first class in Medoc, including that of Haut Brion, which is considered as such, sell for about two thousand three hundred francs the tun. Those of the second growth for two thousand; of the third, fifteen to eighteen hundred; and of the fourth, twelve to fourteen hundred. The prices augment annually until the fifth year, when they are generally double the first; in like manner they diminish in the descending quality, down to the sixth or seventh class.

The wines are classed by the brokers, who decide to which class the wine of each grower shall belong. The growers use all their efforts to place their wines in a higher class, and thus emulation is kindled, and they are justified in their efforts by the profits. The price of their wines, too, is less governed by particular merit, than by the number which they occupy in the scale of classification. It often costs them sacrifices to

reach that object. They will keep their wine many years to give it a superior title, instead of selling it the first year according to custom. By this means an individual will get his wine changed from the fourth to the third class, which he had perhaps occupied before for many successive years.

It may not be amiss to state, that what are called *vins de paysans*, or peasants' wines, in contradistinction to those of the great proprietors, though grown on the spot, are less valued. This distinction is just. It is very often found that vines of the best character, planted in the midst of vineyards which produce the first growths, do not afford wine of the same quality. The peasant is, perhaps, less attentive to his patches than the large proprietor, or works on too small a scale; he secures his wines less carefully from the air; is less delicate in the choice of his dressing, or at the vintage he does not wait, as the great proprietors do, the exact point of maturity, and then his wine is too green, an accident prevalent after wet seasons. He does not choose the days most favourable for gathering the crop, or gathers them too ripe, making the wine sweet, and bad to keep. He does not form distinct classes of the first, second, and third pressings; whichever of these be the cause, the wine is held in less estimation.

As soon as the wines are in the cask, the greatest care is devoted to preserve and ameliorate them. They are fined and racked for the most part twice a year, in March and September, or October, and evaporation is carefully guarded against. After they are five years old they are racked but once a year, in March.

In the beginning, when the must is duly fermented, it is clear, and has an agreeable perfume. The taste is soft and pleasant to the palate, and there is an odour of the raspberry or violet generally perceptible in it. In the wines destined for exportation, as in the case of Bourdeaux designed to be sent to England as claret, they mingle brandy of the best kind in a small quantity. This is done before the fermentation, over the picked grapes, when they are trodden. The proportion is not more than four gallons and a half to a vat of several thousand. The fermentation is covered with blankets, and left close for three weeks or a month. The must is tasted by a brass cock let into the side of the vat. Such is the treatment of the principal vat, for which the

grapes are all picked. The grapes and stems of the subsequent gatherings are pressed together, and left to ferment, and when the wine is cold and clear, it is racked into barrels slightly washed out with proof brandy.

The first growths of Medoe are scareely ever sent to England in a perfeet state, but are, when destined for that market, mingled with other wines and with spirit of wine. The pure wine is not spirituous enough for the English palate, and more body is given by the mixture of Hermitage, Beni Carlos from Spain, and alcohol, ordinarily to the extent of three or four twentieths per cent. This is called "working them." By this means much of the delieate flavour is destroyed, to give it a warmer and more intoxicating effeet. Mixing Hermitage or Beni Carlos alone with the wines of Medoc would not be prejudicial, though it must alter their delieate quality, and though in time they give it a brickdust eolour, and eause it to deposit. It is often too artificially flavoured. Wines so treated never recover their natural bouquet. All the wines are "worked" for the English market. Orris root is employed to give the perfume destroyed by mixing, and sometimes a small quantity of raspberry brandy is used, two ounces to a cask, in order to flavour it factitiously and replace the natural flavour it has lost. Beni Carlos is often mixed with Medoc wines, when they are nearly worn out, to restore their body. Natural wines, the genuine offspring of simple fermentation, are not the fashion in England; hence artificial means must be used to please an artifieial taste. The Dutch import these wines on the lees, and treat them as they are treated in France, drinking them pure and unmixed. Russia and Prussia import them pure, and of little age. They also drink them eomparatively unadulterated with spirit.

White wines are often mixed with very high-eoloured red, sueh as Palus wines, or those from certain eantons of the Dordogne, the Lot and Garonne, and Languedoc. These practices have increased in Franee of late years, and though occasionally useful, are too frequently prompted by lucre. To sueh an extent is the praetice carried, that serious fears are entertained by many Frenehmen of its doing an injury to the credit of the wines of Bourdeaux, and by that means to the commerce of the eity. False stamps are sometimes put upon

the bottles. The best mode for the stranger is to deal with old and respectable merchants alone.

The vines in Medoc and Graves are planted at a distance of three feet from each other every way. The main stem of the plant is only allowed to attain a foot in height, and is fastened to stakes of the same dimensions. To the stakes are joined laths or switches, ten or twelve feet long, horizontally, on which are laid two branches of each vine, left when it is pruned for that purpose. The plough is applied four times to the intervals between the rows. The grapes are thus prevented from touching the ground, if proper attention is paid to keep the branches fastened to the laths, and they receive both the direct and reflected heat of the sun when they are properly pruned. This is considered the most perfect method known for the cultivation of the vine.

Here the account of the red wines of this fertile district must end; in white, the department of the Gironde is less rich.

At Blaye, Libourne, and Réole, the white wines are of a very common quality, and are often sold under eighty francs a tun. They are made from a plant vulgarly denominated *enrageat*, or *folle*, from which is distilled the prime brandy of Angoumois and Saintonge. Bazas produces more white wine than red, from the Blanquette, or Blaguais grape. The greater part is common in quality, from a hundred to a hundred and fifty francs the tun. The best are produced at Fargues, Langon, St. Pardon, St. Pierre de Mons, Toulenne, and, above all, Bommes and Sauterne—the last a well-known wine in England.

The best white wines of the arrondissement of Bourdeaux are grown in the Graves, and in the southern part near Bazas, as far as the canton of Podensac in the communes of Barsac, Preignac, Cérons, Podensac, Virelade, Illats, Landiras, Pujols, to which may be added St. Croix du Mont.

The white wines of a superior quality are divided into dry and luscious, and those again into first and second growths. The dry are generally the product of the Graves. The first in quality are Carbonieux, St. Brice, Château du Lamont, Pontac, Sauterne, Bommes, Barsac, and Preignac. Barsac is a favourite wine with some in England. The best growths in High Barsac are those of Coutet and Filhot, of excellent

flavour and mellowness. There are several varieties and qualities, inferior to the foregoing, but of good repute. They must be bottled at four or five years old, as beyond that term they grow hard.

The second growths are Cérons, Podensac, Virelade, Illats, Landiras, Pujols, St. Pey de Langon, St. Croix du Mont. The first growths of both kinds are sold at about a thousand francs, the second growths six hundred and fifty. But the price augments with age; so that at ten years old the wines of Sauterne, Bommes, Barsac, and Preignac sell often at two thousand francs, and sometimes as high as three or four, and even six thousand per tun, differing in price more or less from each other according to circumstances. It is hardly of use to follow down the wines of this district further. The third class may be defined by prices from eight hundred down to six hundred francs.

Bas Medoc, or that part of it in the arrondissement of Lesparre, produces nearly ten thousand hectolitres of white wine of small value, mostly consumed in the wine-shops. In the commune of Ordonnac there is a small vineyard of eight hectares in extent, belonging to the ancient Abbey of Ile, which has an odour of roses, and sells, when a few years old, at seven hundred francs a tun, instead of two hundred when newly made. Among other methods taken to ameliorate the wines in this district, a certain quantity of the grapes are passed through an oven. With what degree of heat, or for how long this takes place, or what proportion of the grapes are so operated upon, it is impossible to say without more local knowledge.

The best class of white wines in this district are not bottled, more especially the sweetish sorts, until they are seven or eight years old, or older. They keep a long time. After the first racking they are placed in vessels or vats, holding thirty hectolitres and more, where they keep better and lose less by evaporation. Two rackings a year are deemed necessary to mature them.

To obtain the more luscious wines, it is requisite that the raisins be, in the language of the wine-makers, *pourri*, or in such a state that the skin can be detached from the pulp on the slightest pressure. As all the grapes on the same plant cannot be *pourri* at once, four or five different gatherings,

or rather cuttings, of the ripe grapes take place as they reach the requisite state, for which purpose scissors are applied to sever them.

The white wine-growers, anxious, as well as the red, to bring their wine to the utmost possible perfection, place the must from the press in large vats, where the lees are precipitated to the bottom, and then ascending again, form a crust on the surface. In this state all is left until it is perceived that the crust begins to crack or open into gaps, the must is then drawn off by a cock placed at the bottom of the vat. By this process the wine is obtained sooner, fined quicker, and keeps its colour to the last, when due care is taken to bung the casks up carefully the moment they are filled.

The best vines for the more valuable white wines, are the species denominated sauvignon, semilion, rochalin, blanc doux, pruneras, muscade, and blanc auba. The semilion should form two-thirds of a vineyard consisting of these seven species of plant.

The white wine vines in the best vineyards are planted in *joailles*, as it is called, or after an arrangement composed of one or two rows of plants, at two and a half or three feet asunder, removed to the distance of six and a half feet from another range, and this interval is four times ploughed over.

The quantity of white wine made in the department may be about 1,185,904 hectolitres, of which 619,000 are produced in Libourne, 269,280 in Bazas, 100,000 in Bourdeaux, and the remainder at Blaye, La Réole, and Lesparre. The superior wines made in Bazas may be arranged as follows in respect to quantity and quality:—Bommes, 7985 hectolitres at forty-six francs; Sauterne, 6430 at forty-six; Fargues, 8026 at thirty-eight; Langon, 11,856 at thirty; St. Pardon, St. Pierre de Mons, Toulenne, 18,933 at thirty-one. In the arrondissement of Bourdeaux, the wines of Preignac, Barsac, Carbonieux, St. Brice, Château du Lamont, and Pontac, reckon 20,000 hectolitres at forty-six. St. Croix du Mont, Cérons, Podensac, Illats, Laudiras, and Pujols, at thirty-nine; 25,000 at thirty-three; 33,010 at twenty. It must still be borne in mind, that the prices of these wines augment with their age so much, that the sweeter kinds reach two hundred francs the hectolitre. (*See Appendix*, for prices at Bourdeaux.)

The product called claret in England, from *clairet*, is a

mixture of several sorts of wine, as already observed. Beni Carlos and Bourdeaux are thus mingled up for the English market; sometimes Languedoc and Bourdeaux, at others Hermitage or Alicant with Bourdeaux, and uniformly a portion of spirit of wine in addition. Mr. Brande reckons only 12·91 of spirit in claret wine. This quantity cannot be uniform; but must frequently differ, as claret is a manufactured wine, and not the work of one manufacturer alone, who would, in all probability, regulate his proportions by some uniform standard. It was, no doubt, originally a good Bourdeaux growth, and is of long standing in England. "Claret," says an old book of the early part of the sixteenth century—"claret is a noble wiue, for it is of the same complexion that noblemen's coats be of; and therefore, to furnish their noses with a hud (*ita*) of this tincture, they scarlet-fire that promontory, to signify they are such or such nobleman's musicians." "Hud" is perhaps an old heraldic term.

In 1710, a wine called Obryan claret was sold in London at three shillings the bottle, or three and ninepence the flask; while Hermitage and Burgundy brought five shillings for the same quantity.

The unadulterated wines of the Gironde most held in estimation in England are equalled by other varieties in the department, some of which are rarely imported into this country. The consumption of claret in Great Britain has been on the decline for several years past, for what reason it is impossible to pronounce. It appears that the Spanish wines gain upon those of France and of Portugal. The high retail prices of the Bourdeaux wines also are generally maintained, notwithstanding the reduction of duty. No district in the world surpasses the present in the excellence of its growths, and the variety of its products. The consequence has been, that the Bourdeaux merchants have found it convenient to make pretended exports, in some good years, of much larger quantities of wine of prime growth than the country has produced. This they were enabled to do by the substitution of other kinds, which, in good seasons, nearly approach in excellence those of which they were counterfeits. Haut Brion, Gorce, Branne-Mouton, La Rose, Rozan, and others, make very close approaches in quality to the best products of the department.

The exports from Bourdeaux to England in 1832, according to the custom-house there, were 1,132,063 litres. Of these, 896,470 litres were in cask, and 235,593 in bottle.

THE DORDOGNE.

The department of Dordogne (ancient Perigord) affords 660,704 hectolitres of wine, or 10·27 per hectare, valued at 11,913,854 francs. About fifty thousand hectolitres are distilled, and 310,704 exported, or cellared to meet deficient years. Bourdeaux is the principal receptacle for the wines of Bergerac, which are sent furthest away from the department, of which it is one of the arrondissements, producing nearly half the value of the entire quantity grown in the Dordogne. From Bourdeaux these wines are sent to Paris, to Holland, and the north of France. Brandy is mixed with them in the proportion of a velte, or one gallon two-thirds to a barrel of two hundred and twenty-eight litres. The sweet white wines of Bergerac were sent to Holland formerly in much larger quantities than at present.

At Bergerac the best red wines much resemble St. Emilion, or those wines known in the Bordelais by the denomination of *bons-côtes*. They are of a generous quality, and in gaining age acquire bouquet.

There are two distinct classes of white wine, the dry and sweet. The sweet is generous, and strongly perfumed; in the taste, the muscadine grape predominates. It has some resemblance to Frontignac as respects bouquet, but is more vinous. The dry wine is less spirituous, less perfumed, lighter, but without tartness or roughness. When carefully kept until old, it approaches Barsac in *sève*. These wines may be drunk at five years old, but should be kept until eight or ten, when they are better. They will keep good fifty or sixty years.

The red wines are bottled at four or five years old, and will keep well for thirty. Neither the red nor white are kept for sale until they are very old. The sweet white brings from two to three francs a bottle in the country. The manufacture of red wine constantly increases upon the white so as to make it nearly four-fifths of the total quantity manufactured.

The best wines are produced on the hills, upon the left bank of the Dordogne, in the communes of St. Laurent and

Monbazillac. Among the most esteemed growths of white are those of Tcoulet, Marsallet, Raulis, Suma, Borderie, and Abrio, containing one hundred and twenty hectares. The best red are produced at the vineyard of Terrasse, ten hectares in extent. The two vineyards named Les Farcies, seventy hectares, and Brunetière, twenty hectares, also produce good white wine. The price of both is nearly the same, about thirty-three francs the first quality.

The plants most cultivated are the semilion and muscatfou. When the grape has acquired a deep golden colour, and the flavour is sweet and perfumed, so that no acidity is perceived, the maturity is not sufficient to make very sweet wine: they wait until the skin is a shrivelled brown, and nearly decomposed; then the maturity only is deemed complete, and the grapes thought insusceptible of further improvement. When a part of the bunches have reached this state of maturity, they begin to gather them. For this purpose they visit the vine about ten in the morning, taking care never to gather the fruit during wet weather. When the bunch is wholly ripe, they take it off entire; but when only a part of the grapes are so, these are taken from the bunch, which they do not itself separate until all the grapes which are appended to it are ripe, and these they take in succession. The vintage is thus rendered very tedious and expensive.

Every evening the grapes are trodden. They are pressed five or six times, until no more juice remains in the murk. The must is placed in an uncovered vat. When the temperature is warm, fermentation begins in two or three hours. It is much slower in cold seasons. When the mucilage and impurity in the must mounts to the surface, and there forms a thick head, of a greyish colour, in which numerous cracks are observable, the fermentation is sufficiently advanced. The lees then mingle anew with the must, and would soon render it troubled. To prevent this, the must is drawn off by a cock in the bottom of the vat, and placed in tuns. The wine is often kept too long in the vat, exposed to the air, and they are not in general careful in the barrelling, by which means it is not so good as it ought to be. The grapes, red and white, are also mixed instead of being sorted. Some growers, who have only suffered the wine to remain in the vat five or six days, instead of twenty or thirty, have found it greatly improved.

The department of Vienne, formerly Haut Poitou, produces 435,451 hectolitres of wine, of mediocre quality. There are, however, some excellent white wines grown at Loudun, in this department, which merit to be more generally known. At Poitiers, the vineyards of St. Georges, Louneuil, and Couture, Champigney, Dissay, and Jaulnay, about 1650 hectares in extent, produce the secondary wine, which fetches only fifteen francs the hectolitre. In the arrondissement of Châtellerault, the vineyards of St. Romain and of Vaux give some red wines, which average eighteen francs. At Loudun, the vineyard of Bellecave, situated in the commune of Saix, Solomè and Roiffè produces the best. It is the custom in this department to make no partial sales of their wine; a cellar with fifty or sixty barrels is disposed of at once. At Chalais they make a wine like Champagne. It is managed with care; is sweet, light, and delicate to the taste. It is bottled in March, having been fined the preceding January.

In the department of the Nièvre, formerly the province of the Nivernais, a considerable quantity of white wine is made, including eighteen thousand heetolitres of Pouilly, grown in the arrondissement of Cosne. There are also some tolerable red wines, in quality resembling Bourdeaux; the growths of the latter are those of Saulayes, Perrières, Conflans, and Vauzelles, near Nevers. The mean price is twenty francs, and they will keep fifteen years, exclusive of three in wood, and three in bottle, which they occupy in reaching maturity. The wines of Château Chinon, though of inferior quality, bring four francs more than those of the above-mentioned growths. The wines near Clamecy are equal to the foregoing in price and quality.

Cosne is best known for its white wines called Pouilly, in considerable repute at Paris. These wines are produced on the sides of the hills bordering the Loire, called the Coteaux de Lossery, Prée, Nues, and Roche. The three first grow white wine, the last red. There are a few qualities of white, the best of which is small in quantity, and much of it is consumed on the spot, being an effervescing wine. Its price is about fifty-two francs the hectolitre, being sold generally by the *quart*, of a hundred and fifteen litres, at sixty francs. The second quality, which is also considered a prime growth,

sells from forty-three to fifty francs. The third for twenty francs, and the fourth thirteen.

In the departments of the Lot, and the Lot and Garonne, parts of ancient Querey and of Guienne, there are some good vineyards. At Cahors, they make white, rose-coloured, red, and black wines.

The white wines are made in the usual way; the grapes are trodden and pressed immediately after the vintage, and the must fermented in the cask. The wine is racked twice a month, until it is perfectly clear.

The rose-coloured wines are made with the weakest white wines, poured upon the murk of the black wines, which are never pressed. They gain colour and strength by this operation, but are not in great esteem.

The red wines are made with the grape named rougets, mauzais noirs, and the common auxerrois, with the green stalk.

The black wines are manufactured from the fine auxerrois, or pied de perdrix grape, so called because its stalk is red. The grapes are plucked from the stems. After they have been well trodden, the murk and skins of the grapes are either partly or wholly, according to the fancy of the grower, set over the fire in large boilers, and boiled for some time. After this, the contents are poured into a vat, with the other part of the juice which has not undergone the same operation. They commonly remain eight or ten days in the vat, when they are racked. They do not usually press the murk. These wines are most commonly treated by mixing them with one-third of a liquor known by the name of *rogome*, and are then said to be *rogomés*. *Rogome* is the must of the auxerrois grape, made to boil for five or six minutes. They afterwards throw into it the highest proof spirit of wine, in the proportion of one hectolitre to four of the must, and it is then put into the cask. It is racked at the expiration of two or three months. Much of this liquor is sent to Bourdeaux, to strengthen or colour light wines. It is sometimes mingled with aromatics, to make a common ratifia, and sometimes it is sold pure. The price is one hundred francs the hectolitre. The wines treated with *rogome*—*vins rogomés*, are forty francs. The black wines in their natural body are sold at thirty-four francs, and the ordinary

red at sixteen. The white wines bring from thirteen to fourteen francs. The rose-coloured eleven francs the hectolitre.

The Cahors wines carry little perfume, but they are strong in body. They are bottled at two or three years old, though they will keep a long time in wood; the white and rose eight or ten years, though generally consumed after one in the country. The red and black wines will keep twenty or thirty years in wood, and forty or fifty in bottle. In commerce the wines of Cahors increase ten per cent. in value each year they are kept. They are racked twice every year while in wood, in March and September, and fined twice before bottling. The best wines are grown on the hills, and in the communes of St. Géry, Vers, Savangac, and Cahors. The heights called *Causses* in the language of the country, as Causses de St. Henri, De Cournoux, afford good wines. At Figeac the price of the wines depends less on their quality than on the proximity of the outlet, and the inferior sorts often bring, in consequence, the higher price.

In the Lot and Garonne the wine of Rocal, so called from the pebbly ground on which it is grown, is a generous wine, of a fine colour, and agreeable taste. It improves by age; is generally bottled at two, and will keep twenty years. Moirax is a tolerably good wine, but inferior to Rocal. The St. Colombe is indifferent, and apt to turn sour. The white wine of Aiguillon and Porte St. Marie is sweet and luscious; it becomes dry and sparkling by sea or land transport, when left on the lees, and poured off carefully. Among numerous other wines in this department, are those of Clairac and Castelmoron, which keep well in wood for six years, augmenting ten francs per hectolitre in value every year. At Villeneuve the best black wines produced at Thésac, Libos, Fumel, and Périeard, bring for exportation, on an average, thirty francs. They are of marked colour and body, and are produced from a grape named *côte-rouge*, which gives the wine so deep a colour, that one-fifth, mixed with four-fifths of white wine, suffices to give the latter a colour strong enough for ordinary demands. The black wines of this department being those of the first quality, are sold ready for bottling at eighty-eight francs. They are usually kept five years in wood. The most noted growths are those of Fron-

tignat, Grimard, and Carabons, near Villeneuve, and Thésac and Péricard, near Fumel.

The department of the Moselle produces two qualities of wine, principally in the arrondissement of Metz, and close to that city their price is about eighteen francs. The dismemberment of the department of the Rhine and Moselle from France, gave to Germany the greater part of the vines grown on the latter river, where the wines generally understood as Moselle are made. In the neighbouring department of the Meuse, anciently part of Lorraine, 546,523 hectolitres are made. The hills planted with the pineau noir, which are sheltered from the north, and open to the rising sun and the south, produce the wines of the first class, which they denominate *tête de cuvée*, being grown in vineyards having the most favourable exposure. These wines amount to about ten thousand hectolitres, at fifty-five francs.

The wines of the second class are the produce of the same plant, with a southern aspect, having the setting sun on the reverse of hills of small slope, and trifling elevation, or on flat places with a good aspect. There are about 15,000 hectolitres of these wines grown, at forty-two francs.

The third and fourth classes bring, respectively, thirty and nineteen francs the hectolitre, and are made from different fruit. The grape called vert-plant being then mingled with the pineau noir.

The best vineyards are those of Bar and Bussy. At Bar they make what is called *vin gris*, and also some rose-coloured wine. When they find that the wines clear quickly, they rack them in February, but in no case leave them without racking longer than March. The second racking takes place immediately before or after the vine has flowered. When the grape begins to ripen, as well as when it shoots and flowers, insensible fermentation is observed to trouble it, and sometimes it becomes oily. In either case it must be racked a third time, for if neglected the wine deteriorates, and a larger part of red hard wine is required to recover it. After the first season it is racked but once a year, and always when it is moved or sent away. It is only fined when not found, on bottling, sufficiently clear. At the age of two or three years, if observed to weaken, they put into every cask a bucket or two of a stronger quality, from a pos-

terior vintage. Sometimes they pour a measure or two of red wine of Tavel, or St. Gilles, into their grey or rose-coloured wines. Merchants often preserve the wines of Bar in full quality by mixing with them a little of the Rhone wine, that of Bourdeaux, or Burgundy, which agrees well with their constitution. These wines will not keep more than three years in wood, and five or six in bottle.

The department of the Meurthe, part of old Lorraine, produces an abundance of wine, no less than 688,358 hectolitres, at 50·64⅙ per hectare. The quantity of must given out by the vine here is enormously great. At Nancy it amounts to fifty-five hectolitres per hectare. At Toul from forty-four to forty-five. At Château-Salins it is often a hundred. This is almost incredible, and yet within the truth; the mean produce being oftener a hundred and twenty than a hundred for each hectare. The curate of Achain, a correspondent of the French Board of Agriculture, declares that he has often obtained two hundred hectolitres, and in the worst years never less than fifty.

There are three classes of wine in this department, of which much is made from the pineau plant alone. The first is light and agreeable, and brings twenty-five francs the hectolitre. The second is from a mixture of different plants, of good quality. The third is made from the grapes called grosse race, and is a hard, acid, tartrous wine, averaging only twelve francs the hectolitre. These wines are both red and white, of which the best are produced at Buley, in the arrondissement of Toul. There is near Nancy a hill called *la Côte des chanoines*, which is superior to the rest, rather owing to the goodness of the plant than the aspect of the vineyard.

The wines grown at Toul will keep ten years in wood, and will bear from twelve to twenty in bottle, if bottled at three years old. The ordinary wines are kept four or five years in wood, and are submitted to what is called there *traversage*, or racking every year after the two first, when a great part of new wine is mixed with them, or else they would deteriorate.

There is a vine common at Château-Salins, called *liverdun*, a variety, it is said, of the pineau. It produces a wine which will keep well for ten years, and bear a long transportation.

Its bearing is enormous. If its buds are injured by the spring frosts, it is observed to put them forth anew, and yet the grape reaches maturity in due time.

The department of the Maine and Loire, formerly Anjou, produces some tolerable wines. Those of Saumur are in esteem. Except at Saumur, all the wines made in the department are white wines. The best are only kept a year in wood, and will keep twenty-five or thirty years in bottle. If intended to be effervescing, they are bottled in the month of February or March, and placed upright on their bottoms for a year. They are made from the pineau plant, and the vintage is protracted as late as possible, so as to have the skins of the grapes shrivelled. The red wines of Anjou, though little known abroad, are some of the best in France.

The white wines are superior to the red; they are made from the same plant as the red, and are of two qualities, hill and plain wines, which are subdivided into two divisions, called, after the mode of cutting the vines, "short wood" and "long wood." The short wood is that on which two or three buds are left on each of its two branches. It produces better wine than that which is called long wood, or where a long branch is left with eight or ten buds. In the valley of Lanthion the vines are planted in rows, at the distance of four, six, or eight metres from each other; and corn or vegetables are grown between. This wine, as may be supposed, is of the worst quality. The price of the best is from thirty to forty francs the hectolitre. The best wine made near Angers is grown on the schistous hills of Layon, and brings about twenty-seven francs.

The Haut Rhin, formerly part of Alsace, produces 347,335 hectolitres of wine. The first is classed under the generic title of *gentil*, whether red or white, and is designated as *rouge gentil*, *vin gentil blanc*, &c., the plant which produces it being that named the gentil. The second classes of wine are produced from the plants named the riesling, and bourgeois. The other plants are the tockai, chasselas croquant, chasselas commun, and chasselas rouge. With these latter they make a straw wine, or *vin de paille*, in seasons when the fruit attains a sufficient maturity, for which purpose they leave the grapes on the vine until the first frost, when they gather them, and place them on the straw. There they

remain several months in a dry airy situation. They are visited daily, to take away any spoiled grapes. When they are sufficiently dried they are pressed. The wine of the first pressing is of a superior quality. The second and third are kept separate, the quality of the wine deteriorating, as usual, until the murk is exhausted. The wine is placed in wood until the sale is effected, when it is delivered in bottles, which sell from five to seven francs each. The other wines, denominated *gentils*, sell from eighteen to twenty francs the hectolitre. The white wines are rarely bottled for keeping; the reds reach perfection in two or three years. After four years they lose something of their strength, but will keep well in bottle, and be very agreeable drinking at twenty years old. The white gentil reaches perfection in ten years, and will keep good a hundred. These wines are kept in casks of eight hectolitres or more, which are sold full. The red wine is racked twice a year; the white three times the first year, and twice a year afterwards. When the deposition ceases, the wine is not racked more than once in four or five years. Some growers leave the wine on the lees closed up in the cask for three years together, when not wanted for immediate sale, and do nothing more than mind the ullage monthly. In three years they rack, and keep it until wanted.

At Altkirch white wines are made, which sell in plentiful seasons at from seven to twelve francs, but in those of scarcity from thirty to fifty francs the hectolitre. At Belfort the white wines are divided into three classes, namely, that of Rangen, of which there are only twenty hectares grown, the next of middling, and lastly, a class of common wines. The Rangen brings sixty francs the hectolitre; the middling thirty-six, and the common twenty. The vines of Rangen are from the gentil plant. This wine, filtered until it is limpid, is pleasant drinking, very heady, and produces a singular effect on those who go beyond certain limits in the quantity taken. While seated at the table, no inconvenience is perceivable from its effects, but on going into the open air, the limbs are attacked so as to render any movement of them impossible, and yet the mind is not at all altered, as in ordinary cases of intoxication. A small quantity of straw wine is made at Belfort.

In some families in this district an effervescing wine is made by a process used nowhere else. The first must is

taken from the press, and filtered until it is as clear as possible; it is then put at once into jars or bottles, corked and wired. The wine ferments in the bottles, and many of them break, but they are content to preserve half. The wine runs out of the bottle clear to the last drop on drinking.

At Strasburgh, in the neighbouring department of the Bas Rhin, the best red wines are those of Wolxheim and Neuwillers, not far from the former place. The white wines are ranked in quality as follows:—Riesling, Muscadine, Kléber, or Klebner, and common.

Riesling wine is distinguished by a particular bouquet, by strength, and durability. It will keep a century. It is diuretic and cold. The best is that of Molsheim and Wolxheim; that of Molsheim is best known by the denomination of *Finekenwen*.

The muscadine has but a weak flavour of the southern muscadine; it is as cold and diuretic as the Riesling.

The Klebner is sweet, and of an agreeable taste. The first quality is grown at Heiligenstein, as well as at Wolxheim.

These wines are rarely as they should be. Too many species of grapes are mingled in the vintage, so that the wines bear their prices as the superior species of fruit are more or less abundant in them. The Riesling wine at Strasburgh will keep a hundred years, as before stated; but that grown at Schelestadt will only keep fifty, while in Wissemberg it reaches a century, as well as at Strasburgh. At Saverne, not far away, it will not keep good more than two or three years, though the same wine in every respect, as far as growth and treatment are concerned. These wines on an average fetch about eighteen francs the hectolitre. They are drawn off in March and October the first year. They sulphur the casks into which they first rack them, a step necessary for the preservation of the wine in a good condition. They rack them annually, and if it happens that they become ropy, they repeat it every time the disease begins to subside. When the wines are five years old, they make up any defects in quantity with wine of the last vintage, which has been at least once racked. The red wines made there are poor, and will turn sour from the slightest cause. A storm, a bad cellar, or a particular place in an ordinary one, or the introduction of a cock into the cask, will often spoil them.

In the department of the Cher, formerly Berri, a white wine is grown called *moustille;* it ranks with the second growths of Chablis in quality.

In the department of Corrèze, formerly Bas Limousin, wine of the value of four millions of francs is grown. The most noted vineyards are those of Saillant, Danzenac, Allassac, and Varez, situated in the arrondissement of Brives. The great merit in the wines of the Corrèze is their capacity of enduring well, and improving by age. Whether in wood or bottle, they ameliorate constantly as they grow old. A piece of wine belonging to M. de St. Priest, of Tulle, grown at Granne, near that place, was opened, having been in wood twenty-four years without being racked or fined, and was found delicious in quality, and perfectly good. When exported to the North particularly, these wines increase in excellence.

In the canton of Argentac a fine, delicate, white wine is made, sharp to the taste, which possesses most of the qualities of an effervescing wine, without being so entirely. The fruit is carefully selected from the ripest, and gathered when the weather is warm and dry. The stems are thrown aside, as well as the grapes, when either unripe or spoiled. They are pressed, fermented in the barrel, and bottled in March, taking the precaution not to cork the bottles for five or six days after they are filled.

Two species of straw wine of different characters are made here. The grapes are gathered and treated as above mentioned; they are then spread on straw in a dry place until the month of December, when they are judged sufficiently shrunk. They are then separated from the stems, and suffered to ferment whole in a tun with the upper end out, in a place sheltered from cold. When they have fermented some time in this way, they are crushed as uniformly as possible. A new fermentation takes place, and when the head formed by the skins begins to be depressed, the wine is racked by a cock fixed near the bottom of the tun. Below the level of the cock straw is placed, which serves as a filter, the wine runs through limpid, and remarkably saccharine. It is put into a tun, where the fermentation continues. In the upper part of the tun one or two little holes are made, to allow the

escape of the carbonic acid gas. This wine, when bottled, is sparkling, luscious, and very agreeable to the palate.

For the other species of straw wine they choose the grapes from the ripest of all kinds indiscriminately, and dry them for two months on straw. They then press them, stems and all, and the must is fermented in barrels, racked in March, and bottled in two years afterwards. This wine in many respects, particularly in colour and taste, resembles Malaga.

The department of the Indre produces a small quantity of tolerable wine, of the common class, at about sixteen francs the hectolitre. From the department of the Indre and Loire wines of middling quality are exported to Belgium; the quantity grown is considerable. Near Tours the wines are divided into three classes, namely, what is called red noble, wine of the Cher, and common red. The most esteemed growths are those of Joué, about a league from Tours; St. Cyr sur Loire, about half a league west of that city; and St. Avertin, a league to the south-west; Bléré, five leagues, and Ballan two, have some merit, but those of Joué are the finest. The price of the wine of Joué varies as to the first quality from twenty to forty-five francs the hectolitre. The mean price may be from thirty to thirty-five francs. The Vin du Cher varies from twenty to forty. These wines will keep three or four years in wood, and ten or twelve in bottle, especially when they are mingled in the vat with a grape called *caux* or *cos*, common on the banks of the Cher. This grape imparts colour and body to the wine.

The white wines of the Indre and Loire are a little under the red in price.

The department of the Jura produces some tolerable wines, which are frequently exported into Switzerland, Savoy, Germany, and even Russia. At Lons le Saulnier red and dry white wines are made, as well as straw wines, white wines *de garde*, and effervescing wines, white, grey, and rose-coloured.

The best white wines *de garde* are made at Château-Châlons; the effervescing at Étoile and Quintigny. The best red at Château-Châlons, Ménetru, Frontenay, and Blandans.

The straw wines are luscious and stomachic, resembling a little the wines of Spain. The white wines *de garde* resemble much the wines of the Rhine. The effervescing white wines

are good, though not equal to Champagne. The reds are generous, but light. The wines *de garde*, as well as the straw wines, are only drank when old. The price of the former is three francs the litre; of the latter, four or five. The effervescing white wines are from eighty centimes to a franc. The red wines of the first growth in wood, at three or four years old, from fifty to sixty-seven francs the hectolitre.

The white wines *de garde*, or wines for keeping, as it may be rendered, are made of the best white grapes, from the must of a single pressure. The must is put up in iron-bound casks, very strong, as it comes from the press. The bung is made as close as possible, and they cover it with linen soaked in oil, over which are placed fine ashes, well pressed down. The wine is racked twice at the end of eight or ten months from the vintage. After this, the cask is left without closing or filling up for ten or twelve years, when the wine is bottled, and improves the longer it is kept.

At Arsures some excellent red wine is made, which brings forty or fifty francs the hectolitre. The wines of Molamboz and Vadans are good. Those of Arbois bring from twenty-four to thirty francs. The wines for which this department is most noted are straw, yellow, white, and clairet.

The yellow wine is only made at Arbois, and brings from three to six francs the bottle, the price varying in proportion to the age and vintage. It is the same with the straw wines in bottle. In wood, the latter bring from three to four hundred francs the hectolitre. That of Poligny is the best.

The white wines are made everywhere. The best, however, are grown at Arbois, Pupillin, and Montigny, and sell from one franc to one franc and a half the bottle in ordinary years. The price of the clairets is nearly the same; the best are made at Poligny. Those of Arbois are more fiery, and not so agreeable to the palate.

The straw wine is made at Poligny, of the best grapes, perfectly ripe, and gathered with care. They are placed on planks, or suspended by twine, in a room where the north wind cannot enter. Three or four months after, when the fruit has lost half its bulk by desiccation, it is pressed. The must is commonly left six months in the cask fermenting. When the fermentation is complete, the wine is racked to clear it of the grosser lees. It is barrelled up, and left alone

for five or six years. It is then racked again and fined. This wine is sweet and luscious, and will keep a long time. The older it becomes, the yellower is its colour. It is much sought after in France, and will bear carriage well. It has some analogy with Tokai in its qualities, getting thick by age.

An effervescing, or sparkling wine, is made at Arbois, which has been famous for a very long time. Hence "wine of Arbois is not Champagne though it sparkles." After the grapes have been treated as usual, the must is placed in a vat for twenty-four, thirty-six, or forty-eight hours, according to the temperature at the time, the object being to let it settle, and get rid of impurities, which rise to the surface in the form of a crust. This crust is suffered to get as thick as possible before the fermentation is so far advanced as to be visible, because, if it were, there would not be time to rack off the wine in a clear state. The maker always passes the night watching it, so as to catch the favourable moment, which is indicated by little bubbles of carbonic acid gas appearing on the surface. Having racked it off once, the must is placed in a vat until a second crust or scum forms, when it is again racked, and this is repeated two or three times, until the must is perfectly limpid. The wine is then put into casks, which are carefully kept full. The cellar is visited several times in the day, to see that the bung is safe; but if the wine has started, the cask is carefully filled up with the same sort of wine again. When the fermentation has subsided, the cask is closed from the air. The wine is racked again several times in January and February. In March it is fined and bottled during clear weather. The corks are tightly driven, fastened with packthread, and sealed. The bottles are then removed to a cellar of the proper temperature.

Some keep their wine in wood for ten years and more, and thus obtain yellow wine (*vin jaune*). It will last a long while, some of the growers offering it forty years old. The claret is made in the same way as the white wine. Poligny is noted for the best sort. It is very agreeable, especially when mingled with water, and is taken as a refreshing draught by those who live where it is made. Claret here means the same kind of wine which at Lons le Saulnier is called *rosé*, or rose-coloured. It is made by strongly pressing the murk of the

red grape, having first extracted some of the must by a light pressure. It is then treated in the same manner as the effervescing wine.

The white wines are produced by the morillon, bourguignon, meslier, savagnin jaune, or moulan grape.

The department of the Landes, remarkable for containing vast plains of sand formed of those on the ocean shore impelled by the winds over the fertile soil, contains a considerable vineyard tract. Some of the wines are called Cape Breton wines, being produced at that place. The vines are planted on the sandy downs which border the Gulf of Gascony, in small squares, surrounded by palisades of fir, to prevent the progress of the sand; but, notwithstanding this defence, they are soon buried so deeply beneath it, that, at the end of every ten years, they are obliged to be transplanted to another part of the downs. In Cornwall, bordering St. George's Channel, they plant rushes, for the purpose of stopping the like encroachments of the sands on vegetation, and with very good effect.

The wines of Landes are generally made from the white piquepoint plant. The red are light of colour, and have a tartness which is very disagreeable. The white wine is better. In the canton of Arjuzanx there is a vineyard of about thirty hectares, which produces a wine like Bourdeaux in bouquet and colour. The wine of tolerable quality in this department is very small in quantity. The greater part is bad, and finds no favour either with Frenchmen or foreigners.

The Loire and Cher boasts some tolerable white wines. One of them, grown in the Vendômois, at Prépatour, called *vin de Henri IV.*, is of very good quality; it is a dry wine.

The department of the Loire produces some good wines, as the St. Michael, which sells at seventy francs the hectolitre the first year, one hundred and twenty the second, and one hundred and fifty the third. The red wines of that place all fetch nearly the same prices. They do not gather the grape until it has begun to wither on the stem. The first pressure is called the "flower," and is the wine of the first quality. In this department they rack the wine as soon as the fermentation has sensibly disappeared, which is in seven or eight days; two or three times, in eight days more, it is racked again, and it is then ready to be delivered to the purchaser.

That which is kept in the grower's hands is racked four times before the first frosts, and then fined with fish-glue twice in the space of fifteen days, and drawn off each time with the utmost care. The earlier it is bottled afterwards the better is the wine.

The department of Allier, formerly the Bourbonnaise and part of Nivernais, produces some low-priced wines. The best red is about eighteen francs the hectolitre, and capable of preservation for ten years in bottle. At Moulins they make a species called *vin fou*, or mad wine, or rather, "drunkard's wine." They fill a small, strong-bound cask, having no bung, with must; this they put into another cask, and plunge it into the vat, from which it is not withdrawn until the fermentation ceases. This wine is very intoxicating. Others, to obtain a stronger wine than usual, roll a tun into the open air during a severe frost, and taking out the head, having set the cask on its end, it becomes frozen to a considerable depth in the upper part. The lower portion of the liquid is then racked off and bottled. This wine will keep long, and is very strong in quality.

Ancient writers have said that in some parts of Germany, during the Augustan age, the cold was so intense that the wine was frozen in the casks, and cut out with hatchets. Mr. Parkes made some experiments on wine exposed to a degree of cold of 22° below the freezing point, and it was singular enough, that this gentleman stated he could not find any difference in taste between the frozen and unfrozen portions, and he even thought the fluid part tasted more vapid than the other. The proportions were as follows:—Of Port wine 560 grains froze, and 580 remained liquid. Of Sherry exposed in a similar situation, 288 grains were frozen, and 1056 remained liquid. There seems to be a singular difference between the results of the experimentalist and the practice above recorded.

At Gannat they make white wine with the red grape. They gather the grape when wet with dew, immediately press it, and ferment the must in casks. The wine thus manufactured is as clear as the finest rock water, heady, and capable of effervescence when put into bottles in the month of March following the vintage.

A *vin gris*, a grey or rather brown wine, is made here by

leaving the must to ferment for forty-eight hours. A rose-coloured wine is also manufactured by racking it after three or four days' fermentation in the vat. This last wine is excellent, of a very agreeable taste, but, what is singular, has not yet become an article of commerce.

At Mées, in the department of the Basses Alps, there is some good red wine made, which at ten years old sells for one franc and a half the bottle, and at twenty years old for three francs. These wines are kept by the inhabitants in demi-jeans for ten or fifteen years. Malijay, Oraison, Riez, Valensole, and Chabrières, are the principal vineyards.

One of the most extensive vine districts in France, if quantity rather than quality be considered, is the department of the Seine and Oise. It contains 16,298 hectares of vines, producing 849,718 hectolitres of wine, at 52·13⅝ per hectare, valued at 14,775,880 francs. These wines are of very middling quality, even considered as ordinary wines of the country. In the fifteenth century Mantes produced a wine, which some reckoned among the best ordinary. It fell into disrepute a century ago, on the grubbing up of the vineyard of the Celestins, called that of the *Côte de Celestins*. This wine is said to have resembled Bourdeaux. It was exported to England and Holland. There remains nothing commendable in the qualities of these wines at present; but the consumption in the capital makes the average price sixteen francs the hectolitre. In the department of the Oise, also, some ordinary meagre wines are grown.

In the five departments composing the old province of Normandy, the Eure grows the vine with a view to making wine. There is a small vineyard in Calvados, near Caen. In a recent biography of the "Queens of England," there is the information that the wines of Normandy were held in great repute by the Romans, and immortalised by Horace, that they had subsequently regained a portion of their ancient renown, and become a source of wealth and prosperity to the province. The author resided more than a year in the department of the Eure, not long after the last peace, and read the history of the province, of which he remembers nothing to confirm such a statement. The wine, such as it is, hardly equals cider, a great Norman beverage, as may be inferred from the climate. In regard to Horace, if the poet

really wrote verses in praise of Norman wine, they must have slipped out of the only two copies of the poet which the author possesses, or else they carry an allusion too obscure for common optics. Voltaire observed that Adam did not trouble himself about the authorship of "Virgil," nor can it be imagined Horace troubled himself much about the territory Rollo severed from Neustria, and made a dukedom. The vines in the northern part are planted upon steep chalk hills, close to the Seine. The cider made in the department is 617,000 hectolitres; the wine, 59,240 hectolitres, at about 8½d. the gallon. The principal vineyards are at the Andelys, Evreux, Louviers, Pont Audemer, and Bernay.

The departments of the Côtes du Nord, of the Creuse, Finistere, la Manche, l'Orne, Seine Inferieure, Pas de Calais, and Nord, produce no wine. The Somme produces but 700 hectolitres in a very favoured locality, and of the very worst kind.

The wines of Corsica amount only to 310,730 hectolitres, at 31·12 per hectare, in value about 4,660,950 francs. The portion exported goes for the most part to Leghorn. The vines are good; but care and attention seem wanting in manufacturing the wine. Only 30,000 hectolitres are exported. The most noted growths are those of Ajaccio, Bastia, Cape Corsica, Corte, Verdese, Serra, and St. Lucia. The mean price of the hectolitre is but fifteen francs.

A very excellent variety of grape is grown in Corsica, called the *sciaccarello*. At Sartena a wine is made, called by the native *particolore*. It is of a fine red, of prime quality, a delicious flavour, and is stomachic. The best grapes are chosen in situations most exposed to the sun's rays. The stems of the bunches are twisted eight days before the vintage; the bunches are then gathered, and kept eight days more on a floor, when the grapes are taken from the stems and pressed. The must is placed in a small tun for fermentation, and the wine is racked into smaller barrels or demijeans. It is not fit to drink for two years, before which time it would be too sweet. It may be kept twenty years, and in gaining age it acquires strength, and an exquisite bouquet.

All the Corsican wines are exported from Cape Corsica. The wines destined for exportation are generally mingled

with boiled wine. The must is put into boilers, and reduced a third or fourth part in quantity, and to three barrels of wine one of boiled must is added. This mixture gives it the colour and taste of Malaga, and it is frequently sold for such to the merchants of the North, when it reaches Leghorn. This kind of wine is not drunk in Corsica; it sells for fifty or sixty francs the hectolitre. It is said that sometimes from boiling the must too long a disagreeable taste is imparted to the wine, and that the oxide of the copper boilers has been perceived in the taste.. The French are attempting to amend the practice of the Corsicans in this respect, for the climate is excellent, having every variety of hill and plain, and a temperature congenial to the growths, which are suitable to both sites.

[Wine Skins of La Mancha.]

CHAPTER VII.

WINES OF SPAIN AND THE CANARIES.

GENERAL REMARKS—WINES EXPORTED—LA MANCHA, VAL DE PENAS—WINES OF CATALONIA—OF VALENCIA—OF ARRAGON AND NAVARRE—ANDALUSIAN WINES, MALAGA, XERES, &c.—WINES OF MINORCA, MAJORCA, AND THE CANARIES.

SOUTHWARD of France geographically, Spain should, from its happier clime as a vine-growing country, precede it in the excellence of its wines. These, as it is, deservedly rank high in general estimation. This estimation is not founded upon the value in which the Spanish sherries are held in England. It would be unjust to form an opinion of the wines of Spain from the general taste of a people, too many of whom think adulterated wine of Oporto the best product of the grape. If France rank before Spain in its wines, it is because science has led the way to excellence there, and enabled the French to attain, by delicacy of management, by art and

labour, that which nature had well-nigh accorded to Spain without such appliances.

The wines of Spain are grown on a soil highly congenial to the culture of the vine, for the most part upon chalk, called in the country *albariza*, of which carbonate of lime forms two-thirds, and often three-fourths. The sun ripens the grape without those hazards from chill and humidity to which, in a more northern climate, the vintage is constantly exposed. Hence the crop rarely fails, though in the southern parts of the country the heat is so intense in summer, that they are obliged in some places to irrigate the vines. From north to south, sites, soils, and exposures of the happiest kind, cover the face of the country.

Some of these wines are said to possess medicinal qualities. According to Baccius, they were once held in high estimation at Rome, and were exported in his time in large quantities, on account of their reviving qualities to invalids and sick persons. Those in a low and languid state were thought to derive great benefit from them, when taken in a moderate quantity.

With every disadvantage in the process of making, there are both red and white wines in Spain of surpassing excellence. The rude treatment of the grape at the vintage has not made the traveller insensible to this truth. The treatment is somewhat changed at Xeres and Malaga, where, from the demands of commerce, improved methods of management have been introduced by foreign interests. The wines commonly drunk by the people of Spain are not the white luscious wines, nor the dry Xeres, but very excellent red wines, often too much deteriorated, it is true, by the carelessness of the manufacturer. The sweet wines of the South, so highly esteemed by the natives, are usually drunk in but small quantities at a time: rarely more than a glass after each meal. The red are drunk in the houses of the better class in a state that may give some idea of their excellent qualities, untainted by the *odre*, or skin, which the lack of staves for barrels, poverty, or perhaps the absence of commercial stimulus, may lead the peasantry to substitute. The white wines grown near the coasts are not liable to this taint, the foreign demand removing the evil. The best red wines, grown far in the interior, are generally kept in skins,

as being easier of carriage. They are often found so defiled, even in the tavern, with the pitchy taste, and the filth of the uncleansed skin, to say nothing of the deposit owing to the coarse conduct of the vintage, that they cannot be drunk by a foreigner at all.

From Catalonia some thousand pipes are annually sent to England, and twelve thousand are exported from Valencia and Malaga. About twelve thousand tuns were imported into Great Britain alone from Spain in 1808, which is less than in 1700, when the amount was 13,649. Holland and the north of Europe have, in some seasons, taken twenty thousand pipes of all kinds. The home consumption at present it is not easy to ascertain; about five thousand hogsheads are annually consumed in Madrid. Three hundred and fifty thousand pipes have, in some years, been exported from the country, before the Spanish colonies of America were lost to her.

The province of La Mancha is most of it a wine district, and there the justly celebrated wine called Val de Peñas, or Manzanares, is made. These are both towns of the wine district of La Mancha. This wine is red, of excellent body, perhaps with as much as Port before it is made fiery with brandy. In the hands of Frenchmen it would be found equal in strength, flavour, and body to the best southern growths of the country. The vineyards in good part belong to Don Carlos, the brother of Ferdinand VII., and to the Marquis of Santa Cruz. This wine requires age to perfect it, and then it is equal to any red wine in the world, for every quality, save, perhaps, the delicacy which distinguishes the higher class of Burgundy. It is grown upon a rocky or stony soil, as *Val de Peñas*, or "Valley of Stones," indicates. It is produced in great plenty, selling at from seven to ten rials the arroba, in the town of Val de Peñas, or from three shillings and twopence to four shillings and eightpence per $4\frac{1}{6}$ gallons. The higher orders of the inhabitants of the Castiles rate it very highly; but no idea can be formed of this wine from what is drunk at Madrid. The vines employ all the inhabitants of the district, where the wages of the labourer are only about sevenpence a day. This wine, except in the skin, can only be drunk upon the spot, where it is kept in *tinejas*, or huge clay vessels, holding each eight hundred

gallons. These have steps to mount up to them, and cocks introduced into their sides. No wood to make vats, or even casks, can be obtained. The wine, therefore, is transported in skins on the backs of mules, and, in consequence, has a taste not at all agreeable to those unaccustomed to it. It is a rich, racy, and noble wine, and bears a price at the rate of only three pounds ten shillings per pipe from the grower. Six thousand skins have been seen in the store of one of the growers, each containing ten arrobas, or about forty gallons. English merchants going with wine staves to La Mancha, just before the vintage, might secure, on speculation, some of the very finest of wines, well adapted to the English taste. But the staves must be very strong, and fit to bear knocking about when filled, and they must be of small size to fit the mule's back. A little has in this way sometimes reached England; but the journey to the coast is long and tedious, and the expense considerable.

In Catalonia, where the soil is propitious, the plains are carefully cultivated; even the highest cliffs which are accessible are planted with a great variety of vines. Wherever there is a slip or fall of the cliff leaving a few feet of surface, a mere ledge, to which there is no other mode of access than being let down by a rope, even there the vine is set. The fondness of the Spaniards for this branch of husbandry is so strong, as to make them in some places neglect every other species of cultivation. The wines of this province are not in very high esteem, which principally arises from the slovenliness with which they are made, both red and white. The Spaniards formerly sent the larger part of these wines to their colonies in America. Some of the Catalonian wines have been accused of imparting an earthy taste. This probably arises from bad management. About Rosas the hillsides are planted in double rows, and corn sown in the intervals, until the hills become too steep to admit of corn cultivation, and the thin soil, consisting of broken granite, has hardly earth enough to give it root. At Figueras, the country is cultivated with great care, even to the Pyrenees, and on their bases themselves, and the vines are carefully attended. Figueras wine is well known as a mixture used to give lighter wines body. The red wines of this province are not remarkable for quality. The Malvasia, made at

Sitges, about fifteen miles west of Barcelona, is considered very good. It is pale and clear, but acquires colour with age, while the manufacture is negligent beyond example. They have in this province a good *rancio*, a dry white wine called Xarello, not very commendable, and a Macabeo, made of the grape of that name, sweet and white. The exportation of wine from Catalonia of late years, though considerable, has been chiefly for mingling with other wines of less strength. From Tarragona, five thousand pipes of wine, and much good brandy, are annually shipped off. These wines are of tolerable body, but manufactured in the careless mode of the country. The grapes are used without selection, and no pains are taken in the cellar, yet the wine finds a tolerable market. Borja produces a luscious white wine. The country about Tarragona, on the road to Barcelona, is almost wholly a wine country. Mataro has some excellent vines; but the red wine is made here, as usual, in a negligent manner, and neither fined nor racked. The quality is somewhat harsh, between Port and Claret.

From Valencia a considerable quantity of Beni Carlos, a strong deep-red wine, is exported to France, expressly to mingle with claret for England. It comes from a town of that name, to the eastward of the city of Valencia. Vineros has also a red wine, very similar to Beni Carlos. There is also a wine made at Beni Carlos, of tolerable quality, consumed upon the spot. The wines of La Torre, Segorbe, and Murviedro, are generous and good; that of the latter place is strong, and the best part of it is on this account distilled into brandy, which was formerly shipped to America. The wines of this province, too, are often bought up to mix with port in the English market, and are sent there for that purpose. Much *vino de racion*, or common wine, is grown in this province. The brandy of Spain is next to that of France in excellence, and much is made in this province, as well as in Catalonia.

At Alicant there is an excellent red wine, which becomes of the very first order by age; it is made from grapes of two or three sorts, mingled together. Some dry white is also made there, but the town is most noted for *vino tinto*, or red wine, strong and sweet, of which, however, a very small quantity indeed is now exported, the commerce of the place having gone to decay. Like Cyprus wine, it is said to possess heal-

ing qualities, and to cleanse wounds. When old it is called Fondillon. It comes from the tintilla plant. Near Alicant the irrigation of the vines has been carried on upon a large scale. The reservoirs are a grand undertaking, of great cost and much labour. El Pantano, about twelve miles from Alicant, is a tank, formed by damming up a valley with an embankment, two hundred feet high, and forty thick. This supplies water for an entire year. Not far away from Alicant there is another of these reservoirs, having a wall sixty feet high, and broad enough for three or four carriages to travel upon. The cultivation of the vine in the South is therefore an expensive work, from the climate being over dry. It has been calculated that three gallons and an eighth of wine cost from the press fourteenpence, English, for labour alone in this part of Spain. Vinaroz, Santo Domingo, and Perales produce tolerable red wines. The wines grown near Villena, in Murcia, are almost all distilled into brandy.

In Arragon there are tolerable wines. The best are a *vino tinto*, and that of Cariñena and the Hospital, from the vine which the French call Grenache. The best wine in Arragon is called the Campo de Cariñena. In the estimation of Roxas Clemente, it excels all the other wines of Spain for delicacy. The district in which it is grown lies in a hilly country, between Saragossa and Madrid, near Calatayud. In Biscay, at Chacoli, a wine of the second class, a *vino brozno*, or austere and harsh wine, is produced in great quantity. The best is made at Vittoria. Five or six different kinds of vines are engrafted in Biscay on one stock, which must render the wine of very dubious character. It smacks of the skin, and sells for about threepence the bottle. Fuençaral, not far from Madrid, produces a very good wine, of the muscatel class, not inferior to the best Malaga. It is mostly consumed in the neighbourhood.

In Navarre, Peralta is remarked for a good dessert wine, a *rancio*, from the same cause as the French wines so called, namely, long keeping. It is also famed for its dry and sweet wines. There are well-known country growths at Tudela and Puerta de la Reyna, but none reach the sea, or come into commerce, from being made far inland. Near Pampeluna there is a good wine *de liqueur* made. In Leon the best wines are found at Medina del Campo; in old Castile, at Rioxa,

near Terra del Campo, and at Carbezon, not far from Valladolid. A wine much esteemed in the country is made near Ciudad Real. Murcia principally produces *vins de liqueur*. Gallicia has a second growth, for home consumption, called Ribadavia, a white wine. The details respecting the management of the wines in the interior of Spain are very scanty, but the same slovenly treatment injures them all, and the pitched hogskin of the *vinatero*, or wine-seller, generally completes what the carelessness of the grower began. With so many evils in such a delicate article as wine, it is rather to be wondered at that any Spanish wine is palatable, and that the proverb of the country, "Pregonar vino y vender vinagre," "To cry wine and sell vinegar," is not more frequently exemplified.

To return to the wines of the coast. It is in the beautiful provinces of Grenada and Andalusia that the wines most valued by foreigners are made, and the favourite species of grape is the Pedro Ximenes. This species enters into all the wines of that country in the present day. When used alone, and kept to be old, it makes a choice and valuable sweet wine. The mountains round Malaga are clothed to the summits with vines, one half of the plants being of the foregoing species. A great number of presses are continually kept at work during the vintage in that and the bordering districts. No labour is spared on the vineyards. Here the benefits of commerce, in spite of all obstacles, have forced their way, and the wine is made in a far better manner than where this active principle of improvement is unfelt. The most celebrated wines of this province are white. There is a wine here flavoured with cherries, called Guindas, the Spanish for cherries. As well as the preceding class, this is consumed at home.

They have a custom in some parts of the country of putting roasted pears into wine, to improve it in drinking, fancying that it becomes better; whence the saying, "El vino de las peras dalo a quien bien quiéras, "Give the wine of pears to him you regard," because the wine is supposed to be made more agreeable and wholesome by the addition.

The mountain wines of Malaga have long been well known out of Spain. The vines cover the hills from the valley depths, the little habitations of the dressers peep out roman-

tically on the declivities from among them. Wines, dry, sweet, and luscious, are made in the districts around the city. There are also several kinds of dry wine. The Malaga, usually so called, is sometimes mingled with a proportion of wine burned a little in the boiling, imparting a peculiar taste. The reason of this is, that they are not so careful at Malaga in making the *arropé* for mingling, as they are at San Lucar de Borrameda, and, in consequence, the wine gets a singed flavour. It is a powerful wine, long in high repute. This wine is from a white grape, and contains a very large proportion of alcohol. The mountain wines are pressed from the grape somewhat riper than for the preceding kind. The "lagrimas" wine, which is made from the droppings of very ripe grapes, commonly called virgin juice, is a very luscious wine, from the large white Muscatel grape—of course it undergoes no pressure. There is here the Pedro Ximenes, a wine named from the grape so common in most parts of Spain, of excellent quality. The dry wines are generally pressed from fruit not so mature in ripeness as the sweet. At Malaga, too, there is a white wine produced, of a coarse character, but strong; very like bad or inferior sherry. It is too often imported and passed off for the growth of the sherry district in this country. As this wine is much lower in price than sherry, it is turned, among the ignorant, to the dealer's account, and forms a class of our misnamed cheap sherries. Still more is shipped off to America. Very little old Monntain or Malaga sweet wine is grown at present.

The vineyards around Malaga alone are estimated to produce annually between thirty and forty thonsand butts of wine, of which nearly twenty-seven thousand are exported. The prices vary from thirty-five dollars to one hundred and seventy a butt. The Americas now import the greatest part of these wines. As much as two hnndred pounds sterling has been paid for a cask of very old wine of prime quality. Yet, in 1733, old Mountain Malaga was sold for twenty-four pounds per tun, and new for twenty and twenty-one. The wine called "bastard," in old books, was a sweet wine, most probably from this part of Spain, and made of the "bastardo" grape.

The price of labour and the expense of the vineyards are

much less at Malaga than at Xeres, where the sherry wine is grown. Most of the vines flourish in about eighteen inches of a rich loam or mould upon a blue shaly substratum, which scales up, and, mingling with the mould, imparts to it a looseness and free quality allied to the rocky or gravelly sites, found to be so congenial to the vine in other countries. It is not, therefore, so calcareous as the soil in the vicinity of Xeres, and hence not so well adapted for dry wines. Close to Malaga, however, limestone intermingles with the schist. The vineyards are, many of them, situated at a great height above the sea, where the earth around the vines must be carefully secured. In the treatment of the vine they are by no means as careful as at Xeres. Yet every spot is cultivated, although the country is exceedingly uneven. Manure is rarely used at all. The varieties of vine in the district are very numerous, and in this fine climate there are three gatherings of grapes in the year. The first gathering takes place in June, and furnishes the Muscatel raisins, and the bloom dried in the sun. The lexias, which are exported as such, are dipped in lye, and exposed to the sun's action. The Larga grape, that yields the sun raisins, makes an excellent wine mingled with the Pedro Ximenes. The vintage grapes are gathered in September and October. It is wonderful to view the fruitfulness of the soil in this district. In 1829, eight millions of pounds of Muscatel and bloom raisins, and 30,000 arrobas of lexias in casks, were exported from Malaga, the produce of one season, with no less than 20,000 jars of grapes, yet the quantity of wine made was not diminished; it not being less than 35,000 butts. The fine climate renders the vintage in this part of Spain not only rich in produce, but certain in crop. The exports of fruit and wine to England from Malaga are on the decrease, but to America it is the reverse. The Muscatel grape cannot be cultivated more than four leagues from the coast.

The district called the Axarquia is that in which these vines are grown. Though mountainous, wherever it is practicable, the vines are planted symmetrically, about eight feet asunder. In the worst seasons nineteen arrobas of wine are produced from five hundred plants. It is impossible to form a true idea, without seeing it, of the amazing fertility of the

Axarquia. Wherever the soil on the acclivities is not occupied by vines, the prickly pear grows, and feeds the cochineal insect, while olives, almonds, figs, oranges, lemons, pomegranates, and even the sugar-cane, flourish in profusion under that glorious sky. Velez Malaga, five leagues from Malaga, produces much wine, passing under the general name of Malaga.

The wines are conveyed from the press, half fermented, into the merchant's stores in sheepskins. Wine is constantly sent from Malaga to America unbrandied, and, notwithstanding the treatment it receives at the vintage, it bears the voyage well, although English merchants assert that the decomposition of the wine, for want of brandy, is inevitable. The truth is, that the bad mode of preservation of the southern wines causes whatever defects are found in them. If they were treated with as much care as the French bestow on their better wines, no such results would ever be observed.

The sherry wine, which some will contend was the "sack" of our forefathers, but which was, no doubt, a general name to designate the wines of Xeres, Teneriffe, and others of a similar character, belonging principally to Spain, is made in Andalusia, near Cadiz, on the west coast, between the rivers Guadalquiver and Guadalete. The district included in the province of Cadiz is of a triangular form, having on the northern angle the town of St. Lucar de Barrameda; on the southern angle, the Puerto de Santa Maria; and the eastern point formed by the town of Xeres de la Frontera, from which the wine takes its name, the English having first changed Xeres into Sherris, and finally into Sherry. This triangle encloses a space measuring about twelve miles on each side. The vineyards which produce wine for the English market cover eighty thousand acres. Upwards of four hundred thousand pipes are made of all kinds, including those which are exported, and such as are consumed in the district.

There is a great gradation in the prices of sherry, for though the average is not above thirty-five pounds the butt, the charges are from fifteen up to sixty-five pounds. The value of the sherries exported is calculated at four hundred and fifty thousand pounds. There are no export duties.

The manufacture of the sherries takes place under the care

of the agents or principals of foreign houses, who reside on the spot, and this is the reason of the improvement of late years in the wines of Xeres. The vineyards are principally on slopes or declivities. The grapes are left to hang until they begin to shrivel in the sun. The fruit is white, one-eighth being generally the Pedro Ximenes grape, mixed with other varieties. In those at Malaga and Grenada, one-half of the Pedro Ximenes grape is used in the vineyards, at Motril four-fifths, and at Paxarete one-fourth. The Temprana is used largely at St. Lucar, at Xeres, and at Port St. Mary. It is adopted in the Paxarete, Ximenes, Muscat, and Tintilla wines. The grapes are sometimes exposed to the sun on mats for a day or two after they are gathered. They are turned and sorted carefully for the better wines. The vines, planted about five feet asunder, are carefully dug round immediately after the vintage, and little hollows are left by some growers round the roots to retain the moisture. In January, or soon after, they turn up the mould, and carefully weed the ground. The pruning takes place in March, and the earth is afterwards raked over, when the vines are propped with canes until the vintage. The labour of the vineyard is continued even to hunting out the insects on the vines. There is, however, seldom or never a failure in the crop, owing to the benignity of the climate. The high price of good sherry is not wonderful, when the care in the growth and the home duties are taken into account. A bottle of very superior sherry fetches three shillings and fourpence on the spot, though the common ordinary wine of the country is but sixpence.

The soil of the Xeres vineyards, by which is understood the entire district for six or seven leagues round, at least the better portion of them, consists of what is called "albariza," or chalky soil, of "arenas," or light sandy ground, and of the "barros," the last being an ochrous earthy soil, with here and there clay and other substances intermingled. The vineyards are exceedingly productive. The produce in average years in fair sized good vineyards, is from fifty to sixty butts, or about three hundred gallons the English acre. Some, however, produce six hundred. The soil is dug deep and trenched, but not manured. Where sand prevails, or in the *arenas*, the product is about five butts an acre; on the *albarizas* about three.

The grapes are submitted to the usual mode of pressure, being sprinkled with gypsum to saturate the malic acid in the fruit. The *mosto*, or must, is left to ferment in the cask, with all the scum retained which the fermentation raises. They do not suffer it to work over, but leave it to itself. The March after the vintage it is racked. The elements of the wine must be good, when so little care is necessary in the process. The time the wines are thus left is ten or twelve weeks. Casks are left exposed in all temperatures, and sometimes in the open air, without mischief. Any kind of shelter is considered sufficient, and a good cellar, as it is held in the North, is considered of no moment. The places in which the wine is left to ferment are strongly constructed of wood, above ground, and the casks are placed in tiers, with the bungs slightly closed, so as to keep out all extraneous matters, but at the same time to allow full breathing to the wine. In fact, the ropiness of the wines, an accident of very frequent occurrence elsewhere, owing to the slovenly mode of treating it after fermentation, seldom occurs here. The process causes matter for surprise, in some cases, how so excellent a product is obtained. When the same care is observed in the first treatment of the must and its subsequent management, as is observed towards the vines, no *graise* is ever the result.

The varieties of sherry depend, in a great measure, upon the species of the vine used, the class of soil in which it is grown, and the care taken in the management of the process of fermentation. All sherry wine is by nature of a pale colour, the darker shades are conferred by age, or by *vino de color*, or boiled wine. This *arropé*, as it is called locally from the Arabic, is made only at San Lucar de Barrameda, in the following manner. They take six butts of must before fermentation commences, and boil it down to one butt, keeping the liquid constantly stirred and the surface carefully skimmed, so as to remove all impurities that arise in the boiling, taking care that the liquid be not singed or burned. The process is conducted over a gentle fire in a large copper-boiler, and when it is quite thick, the fire is gradually withdrawn from it, so that the liquor may cool without being too sensibly effected. This is the *arropé* which, afterwards mixed in a quarter or less quantity with the pale wines, makes the brown sherry of different shades which is so much esteemed.

The wine is not at all deteriorated by this treatment, or by the mixture of wines of the same quality. The pale sherries, then, are the pure wine, containing nothing but the admixture of a couple of bottles of good brandy to the butt; and this is wholly unnecessary.

The wine called Amontillado is not always the product of design. The quantity made is small. It is a drier wine than the common sherry, and is very often the result of accident. To make this wine the driest of all the Xeres wines, the fruit is plucked two or three weeks earlier than for the other species. It allows of no foreign mixture of any kind. The white grapes are trodden by the peasantry with sabots on their feet. The wine is then allowed to ferment for two months or more, when it is racked, and placed in the wood in the depositories above ground at Port St. Mary and at Xeres. These depositories generally hold three tiers of casks. The bungs are carelessly closed without affecting the quality of the wine. It is singular, that of a hundred butts of sherry out of the same vineyard, some of them will be Amontillado without the manufacturer being able to account for it. Not a drop of brandy can be added to genuine Amontillado without spoiling it. The sherry wines of the best quality average about 14° alcohol per cent. The statements otherwise given at 18°, 19°, and 20° of alcohol, are erroneous, or refer to those wines in which brandy is added to disguise mixtures by the dealer, some of which, passing in England for sherry, are either the common growths of the country, or are altogether factitious. Of this last class is the larger part of inn and tavern wines.

San Lucar de Barrameda stands on the left bank of the river Guadalquiver, at its junction with the sea. Between this town and Xeres de la Frontera are situated the vineyards which produce the wine called Manzanilla, properly Mançanilla, lately come into great use in England. This wine was very highly spoken of as a choice wine in the fifteenth century, and it is at present held in higher estimation by the natives than any wine produced in Andalusia. It is a light, delicate, pure wine, of a fine-straw colour, highly aromatic and stomachic. With many constitutions it operates as a diuretic. Much discussion has taken place in regard to the name and place of origin of this favourite species of wine.

Both Herrara and Roxas Clemente say that the name is derived from a *pueblo*, or village, near Seville, called Manzanilla, and not, as some suppose, from mançanilla, a small apple. In modern days there is no Manzanilla wine produced in that vicinity, nor is there any existent record of any having ever been grown in that part of the country. At St. Lucar, however, where its growth and celebrity are traced to remote ages, it is generally believed to have derived its name from camomile, the Spanish name for which is "Manzanilla." This similarity of name, with the strong resemblance there is in its flavour with that plant, tends to confirm the opinion that this derivation of the name is correct. This wine is the driest of all the Spanish wines, scarcely any wine whatever surpassing its delicacy and purity. It admits of no mixture of any kind, not even the smallest quantity of brandy, without a manifest deterioration in taste and flavour. When carefully made, it becomes a "perfect wine," and improves by age beyond all other kinds, both in flavour and firmness, so as to surpass almost every dry wine. The vineyards that produce the Manzanilla are planted with various species of vines, but where what is called the Rustan grape predominates, the best wine of Manzanilla is the result. The soil is light and brittle, being composed of a mixture of Albarizas, of the Arenas, and the Barros. The grapes are mature at an early period, and are gathered ten or twelve days before the general vintage of the country. These vineyards produce about five thousand butts of must, nearly four-fifths of which are consumed in the country. It was supposed at one period that this choice and delicate wine could not bear the transit to other countries, or from its own naturally warm to a cold climate, without undergoing a change in quality and flavour. This prejudice is not founded in fact, as, when carefully bottled in Spain, in good condition, and with the commonest precaution, it will stand a voyage to any distance, and to any climate, cold or warm. This fact is abundantly proved in the Manzanilla shipped twenty years ago by the house of Gorman and Co., of London, so well known for its superior Xeres wines. It retains, even at this time, in full perfection, its quality and flavour, although until recently it was not extensively known, even among persons

of refined taste. Mr. Ford, an experienced and able author of much upon the subject of Spain, by his notice of it in his writings, was the means of bringing it into general notice two or three years ago.

There is a wine which is grown on the right bank of the Guadalquiver, called Moguer. This wine is sometimes twice brandied, and sent to London as common sherry by houses that can be named; but the object here is to expose base practices, not to publish names; to caution the public, not to punish individuals. Moguer is of a cheap and light quality. The wine is not otherwise adulterated by the exporter; though often so treated afterwards in London with Cape and less costly ingredients. The exporter sends his wines, high or cheap-priced, from the country, strictly for what he announces them to be. Good sherry of a year old would cost the merchant thirty pounds the butt without duty in the country, if it should be exported; so that, duty included, it could not be imported into Great Britain under thirty shillings the dozen to the merchant, nor good four years old under forty-four. Sherries are not to be judged by colour, but solely by taste. The best kinds are mingled with nothing but wine of the same quality, which is inevitable, owing to the mode of keeping up the merchants' stock by replenishing the casks: except the small quantity of brandy, already mentioned, when sent to England. Even this small quantity would, we think, be much better omitted. At all good tables in England hot wines are deservedly gone out of fashion. Not only are they, to a certain extent, injurious, but they retain none of the true flavour and aroma of the genuine wine. Fine sherry wine wants no brandy for its preservation, and the refined palate cannot want what is an injury to the flavour in ever so small a quantity. (See Appendix, No. IV.)

At Rota, opposite Cadiz, a very excellent muscadine red wine, called Tintilla, is manufactured. At Montilla, near Cordova, they have a very fine-flavoured dry wine, called Montilla, which is generally consumed in that place and neighbourhood.

Paxaretc, a wine made at an ancient monastery about five leagues from Xeres, and about eight from Ronda, is a rich,

sweet, and full tasted wine, from the same grapes as the sherry, but in different proportions, very well known in this country, and made from the Pedro Ximenes grape.

The red wine above mentioned, called Tintilla and Tinto di Rota, or, as it is styled in England, Tent, is rich and luscious. It carries about thirteen per cent. of alcohol. Rota is about five leagues from Cadiz. It is made of a grape which is said to be coloured all through, and is principally used in England for communion purposes in the Church.

In Andalusia, towards Seville, there is a reddish-white species of wine, very sweet and luscious.

The wines of Spain generally, both red and white, will one day rank much higher in estimation than some of them do at present. The importation of them into England is fast encroaching upon the Portuguese. The dry and sweet wines are almost all that are now known to foreigners; but the red wines of Spain, properly treated, would be found equal to most others in goodness. (For imports, see Appendix, No. IV.)

Strength and durability are characteristics of all the Spanish wines. Their boiled wine, the Italian *Vino Cotto*, or *vin cuit*, as the French call it, is mingled with other growths, as well as with sherries, for the sake of deepening colour or improving flavour. Their wines *de liqueur* sometimes receive also a proportion of boiled *mosto*. A good age is required for almost all the Spanish wines to impart to them the proper flavour, and attach to them that mellowness so grateful to the palate.

The following may serve as some guide to the prices of sherry in England, reckoning the butt at one hundred and eight imperial gallons, or one hundred and thirty of the old measure, duty paid.

Pale sherry of a middling quality may be imported at from sixty-five pounds per butt to seventy-five. The better qualities run from eighty to one hundred pounds the butt, and even more; and fine amontillado higher still, up to a hundred and fifty pounds. Two hundred pounds have been given for a butt of rare excellence. In 1733, sherry was sold in the market at a price varying from twenty-six to twenty-eight pounds per tun, or about fourteen pounds per butt. The brown sherries sell at about the same prices.

The islands of Majorca and Minorca are well situated for the culture of the vine. The last-named island produces a muscadine wine called Pollentia. There are also some red wines grown there, but none are exported. In Majorca there is a very good red wine, called Aleyor, from the vineyard out of which it is made; used principally for home consumption; very little, at least, is exported. The white wines are made in a slovenly way, somewhat in the mode adopted in Cyprus, which would seem to indicate that the art had been brought there first, and not acquired from Spain. They use earthen or stone vats in precisely the same manner for the purpose of fermentation. At Banal Busa, a wine resembling that of the Rhine is grown, well known by the name of Alba Flora; it resembles hock, but is not so dry.

The Canaries produce annually about twenty-five thousand pipes of white wine for exportation, while fifteen thousand are consumed in the islands, or submitted to distillation. The brandy thus distilled used to be sent to the Spanish colonies. Teneriffe alone produces about twenty-two thousand pipes, of a hundred and twenty gallons. There has been a great corruption of names in the wines of these islands. Canary was once much drunk in England, and was known only by that name as late as 1733. In that year new wine was worth from twenty-six to thirty pounds per tun, and old Canary thirty-six pounds. The writer of this tasted some which was a hundred and twenty-six years old, it having been kept during all that period in the family cellars of a nobleman with whom he happened to be dining, and who produced the bottle, in contents little more than a pint, as a *bonne bouche*. Its flavour was good, and it had ample body. What is called Vidonia is properly the dry Canary wine, of a good body. It improves by age, and is known often under the general name of Teneriffe. Perhaps it was so called because it is derived from the *vidogna* grape, or is a corruption of Verdona, a green wine, of good body, but harsher than Teneriffe, formerly grown on the western side of that island, and shipped at Santa Cruz for the West Indian market, little or none coming to Europe. Teneriffe produces the best wines of all the islands, having the greatest body. The Vidonia is a wine which improves in warm climates, in this respect resembling Madeira. The Malmsey of Teneriffe is small in quantity, but excellent in

quality. At Canary both Malmsey and Vidonia are grown. The Malmsey has been accused of possessing an acid quality. At Gomera the wines improve so much by age, that the dry kind gain the flavour of Madeira, and may be easily mistaken for it. In fact, it is often sold for it in England by the inferior class of wine merchants, to persons who are no judges of what good Madeira should be. On the eastern side of Palma, Malvasia, or Malmsey, is grown, which in a few years gains a bouquet like a ripe pine-apple. The dry wines here are not as good as those of the other islands. The best vines do not grow much more than a mile from the sea. In the voyage of Sir John Hawkins to these islands, in 1564, he speaks of grapes there, which for size were equal to damsons, and says of the wines, that "they were better than any in Spain." (See Appendix, No. V.)

In the early voyages to these islands, published in Hakluyt, and therefore as old as 1598 at least, there is a passage relative to sack, which will puzzle wise heads about that wine, by Nicols, who lived eight years in the islands. The island of Teneriffe produces three sorts of wine, Canary, Malvasia, and Verdona, "which may all go under the denomination of sack." He says that the best wines in his time grew on a hill-side called the Ramb, in Palma. The term sack, it would thus seem, was applied to sweet and dry wines of Canary, Xeres, or Malaga. In Anglo-Spanish dictionaries of a century and a quarter old, sack is given as *Vino de Canarias*. Hence it was no doubt Canary sack, Xeres sack, or Malaga sack. It was much drunk formerly, for an old work of the beginning of the seventeenth century says of some of the fashionable rakes of that time, "Sacke is their chosen nectar; and they love it better than their own souls; they will never leave off sacke, until they have sackt out all their silver, nay, nor then neither, for they will pawn their crouds (fiddles) for more sacke." In Dodsley's "Old Plays," vol. v., the sack drunk at gentlemen's tables is described as a mixture of sherry, cider, and sugar; sometimes eggs were added, and those who did not think it sweet enough, put in more sugar. Howell's "French and English Dictionary," 1650, translates sack *vin d'Espagne, vin sec*, or dry. Some have supposed sack is derived from *saco*, or the *odre*, or *bor-*

racha, in which wine is carried; but the Spaniards do not apply *saco* to wine skins. The best authority perhaps is Venner's "*Via recta ad vitam longam*," printed in 1628. This author, describing Canary wine, says, that Canary "which beareth the name of the islands from whence it is brought, is of some termed a *sacke*, with this adjunct *sweete*, but yet very improperly, for it differeth not only from sacke in sweetness and pleasantnesse of taste, but also in colour and consistence: for it is not so white in colour as sacke, nor so thin in substance." This author says nothing of mixing sugar with this Canary *sacke*. He says, "sacke and other stronger wines are best when they are two or three years old." The same author says sack is "completely hot in the third degree: and that some affect to drink sacke with sugar, and some without: and upon no other ground, as I think, but as it is best pleasing to their palate." Again: "Sacke taken by itself is very hot and penetrative: being taken with sugar, the heat is both somewhat allayed, and the penetrative quality thereof also retarded." Sugar was in those days taken with Rhenish, and several white wines. The conclusion is, that "Sherris" sack, and all such, were the dry white wines of Spain and the Canaries, not the sweet. Vidonia, for example, was a sack as well as sherry, and the dry mountain wine of Malaga; a Canary sack is said to have been distinguished by the adjunct *sweete:* this was no doubt Malmsey, and plainly shows that sack was a dry wine. The price in 1667, in "Anthony Wood's Life," as fixed at Oxford, ran "Sack and Malagaes one shilling and sixpence the quart, and no more." Again, in 1673, "Sack and Malaga" occur together at one shilling and tenpence the quart. These wines are always together in the lists. "Canary, Alicant, and Muscatel" precede.

Vines in the Canary Islands are said to have been first planted there in the regn of Charles V., having been brought thither from the Rhine, and the change in the climate and soil produced Canary wine; but the vine of which the Malmsey, or Malvasia, is made, was transported there from Candia. A pipe of Malvasia used to sell, about the year 1610, for twenty ducats, which with a duty of seventeen ryals on exportation, made the total expense, for above a hundred Eng-

lish gallons, only three pounds fifteen shillings sterling on the island, when new. Buena Vista, Dante, Oratena, and Tigueste, were formely boasted of on the island as the favoured spots. The soil is mostly volcanic; in Palma the best wines grow in a soil of this sort, called the Brenia. The Malmsey is very rich and perfect of its kind, and was formerly in great repute. The produce was once annually twelve thousand butts. The dry wine is inferior, and does not keep so well.

The importation of wine from the Canaries into Great Britain, though formerly great, had declined as low as sixty-five tuns in 1785. In 1808 it had again increased; the amount being 1683 tuns. In 1821 it had fallen to about a thousand, and it has not since increased. The wines of the Canaries are second to those of Madeira, but the cause of this difference is unknown. Perhaps it may be ascribed to want of care in the management of the vintage; for in Madeira there have been great incitements to improvement from the increasing demand for the wine, and the influx and residence of foreign merchants, all anxious to obtain the best wines, and to create a useful emulation among the cultivators of the vine, which may not have been experienced at the Canaries.

Wine of an ordinary kind is made in the Cape de Verde Islands; in that of St. Antonio the quantity manufactured is very considerable.

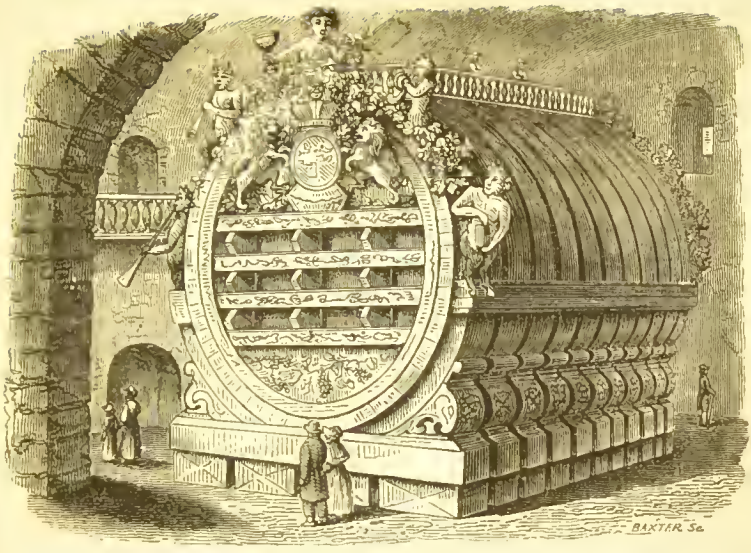
The wine measures of Spain are the *arroba majore*, which varies in different provinces; that which is commonly used contains 4·245 English gallons, or six make twenty-five gallons. A butt of wine contains about thirty of these *arrobas*. Twelve *arrobas minores* are thirty-nine old English gallons. That of Malaga is 4·186; and of the Canaries the same as that of Spain. The *arroba* of Valencia is 3·112 gallons.

The *Cantara*, in like manner, differs; that of Oviedo being 5·098 gallons; of Alicant, 3·052; while that of Arragon is only 2·724 gallons.

Majorca and Minorca have the Quartin and Gerra, of 7·168 and 3·187 gallons. In Gallicia the *Moyo*, of 42·798. At Xeres the *botta*, of 120 gallons, and at Barcelona the *carga*, of 32·695 gallons, and *pipe*, of 120.

Borracha means a leathern bottle; so also does *Bota*.

A wine skin made of hog or goat's hide is called *ódre*, dressed with the hair inwards, and pitched or rosined, being more convenient for carrying on the back of a mule, and cheaper than a cask. The bad taste thus communicated, the Spaniards notwithstanding call *olor de* BOTA, the "smell of the *bottle*," by custom, and not *de ódre* of "the skin," as it is in reality. Yet they say, *ódre de buen vino*, a "skin of good wine." *El de los odres*, "you with the wine-skins!"



[Heidelberg Tun.]

CHAPTER VIII.

WINES OF GERMANY AND SWITZERLAND.

ANTIQUITY OF THE VINE IN GERMANY—THE RHEINGAU—SPECIES OF SOIL—CHARACTER OF VINES—LARGE TUNS—NATURE OF THE WINES, AND PRICES—WINES OF SWITZERLAND.

THE Germans have expended much research upon the antiquity of the culture of the vine in their country. While many of their writers ascribe its introduction to the Emperor Probus and his legions about the year 280, others go up to the Asiatic Bacchus, and pretend that Bacharach, in the vicinity of which so many excellent vineyards are found, derived its name from the deity of wine: a stone still existing in the river, which they call "Bacchus' altar." Had the etymology been treated metaphorically in this way, to describe the vine country on the Rhine, and some of its tributary rivers, it would not have been out of place to call it the country of Bacchus. The Germans boast of four other places sacred to Bacchus: Steegbach, situated on a hillock, they call the ladder of Bacchus; Dicbach, the finger (*digitus*);

Handbach, or Manersbach, the hand ; and Lorch, or Laurea, the bay or laurel. Formerly it was impossible to enter a German house without being offered "large jacks of wine," so attached were they to the rites of the purple deity. The banks of their rivers are covered with vineyards. The Rhine, Moselle, Neckar, and Maine, are gardens of the vine. Nor have the Germans been content with cultivating the banks of rivers alone, but the higher lands are planted with the greatest success. It matters very little whether the territory of Treves poured out its abundance in the time of the Romans or of Charlemagne; the Germans have enjoyed it since the year 400 ; and the Frenchman who said the Germans had found out the perpetual motion in their cups, or tall old wine glasses, was not far from the truth. The German loves his glass of cheerful wine ; and while he cultivates his vines, let the grave burgher of Treves swallow his *wein* (wine) of Augenscheimer, his Thiergartner, Schamet, and Pitcher, out of his green glasses, to fourscore years of age, provided he will allow the foreigner to share a little of the superfluity of his golden vintage. From Bonn to Coblentz, and from the latter city to Mayence, the country is covered with vineyards. The Johannisberger of "father" Rhine, the Gruenhauser or the Brauneberger of the Moselle, and the Hochheimer of the Maine, each distinguish and hallow their respective rivers in the eyes of the connoisseur in wine. They are some of them powerful wines when genuine, as their devotees can well attest. Rhenish wines are mentioned in England, temp. Richard II., and ordered to be sold at a hundred shillings the tun, and retailed at sixpence the gallon, which was higher than the French wines of Gascony.

Whoever has visited the noble Rhine must have felt sensible of the beauty of its vineyards, covering steep and shore, interlaced with the most romantic ruins, towns ancient and venerable, smiling villages, and the rapid broad German river, reflecting the rich scenery on its banks. Nowhere is the fondness for vine cultivation more evident in every grade and class of farmer than in the German wine districts. The humblest peasant has his square yard of vineyard. Every accessible spot on the declivities with an auspicious aspect is decorated with the favourite plant. From Mentz even to Bonn the vineyards of the Rhine are observed to greater

advantage than any similar cultivation in other countries: Erbach, enthroned on its vines; the Rheingau, its Johannisberg on a crescent hill of red soil, adorned with cheering vegetation, every cranny cultivated that will carry the vine; Mittelheim, Geisenheim, and Rudesheim, the last with its strong, fine-bodied wine, the grapes from which bask on their promontory of rock, in the summer sun, and imbibe its generous heat from dawn to setting; then again, on the other side, Bingen, delightful, sober, majestic, with its terraces of vines, topped by the château of Klopp. The narrowed river, its steep hills and vineyards, the corn and fruit which the vicinity produces, all remind the stranger of a second Canaan. The Bingerloch, the ruins, and the never-failing though formal vines scattered among them, like verdant youth revelling amid age and decay, give a picture nowhere else exhibited, uniting to the joyousness of wine the sober tinge of meditative feeling. The unclad hill summits back the picture, with feudal relics or monastic remains. From below Assmannshäuser to Lorch, crumbling ruins still mingle with the cool leaf and rich purple of the grape. Bacharach is near, the wine of which, probably the fancy of the drinkers having changed, is now pronounced second rate in quality, though not long ago even the French celebrated it in their Bacchanalian songs. This wine is still very good, fashion may say what it chooses. Landscapes of greater beauty, joined to the luxuriance of fruitful vine culture, can nowhere be seen; perhaps there is something to be added, for the alliance of wine and its agreeable qualities, with the noble scenery of the river. The mind will have its associations upon all subjects.

To the north of Coblentz the wines are of little comparative note, though Bodendorf, near Bonn, has been said to produce a Rhenish wine of the second growth thus far to the north. Coblentz is about the latitude of Plymouth, while Mayence itself is nearly on the parallel of the Lizard in Cornwall. Either on the Rhine, or on its tributary rivers between these two places, the most celebrated wines of Germany are grown. There is much limestone to the west of Mayence, and a varying surface soil. It is at Coblentz that the soil first becomes particularly well adapted for the cultivation of the vine. The right bank descending is most noted for its wines, but the vineyards, in many parts, cover both banks. The Rheingau is a district about fifteen miles in extent, and

here are made the most celebrated wines, including the far-famed Hochheimer. The valley of the Rhine, taking from Mayence a western and north-western course, exposes it to the warm south-west winds, which have a salutary effect upon the maturity of the fruit, which its northern latitude would else hardly impart. This wind, to reach the Rheingau, does not pass over the high Alps, but over the Jura range, which is lower, and without snow. None of the better wines of France are grown so far to the north.

The soil on the banks of the Rhine, from the variety of rocks, throughout the great wine district, is various; to the limits of that district, north and south, we have already alluded. To the east and west the boundaries are irregular, as embracing the Moselle to Treves, the Ahr, the Maine, and other streams. Granite decomposed, and quartz in favourable sites, offer good vine land, and so does sienite. Clay slate, mingled with quartz, is observed to be highly favourable. The temperature is thought to be increased over this species of soil by the colour retaining the heat. Basalt is found a productive soil, especially when mingled with marl, and some of the best vines grow upon land of this description where the basalt is pebbly. Where marl, mingled with pebbles, occurs, the vines succeed best; nearly the same character, but, if anything, still a better, may be given to dolenite. Variegated sandstone in decomposition does not do well for the vines in dry seasons, though light in its nature; when mingled with clay, or other earths, its produce is tolerable, but it gives no remarkable wine. Otherwise than when mingled with different earths, it is barren. Shell marl, where the calcareous properties are most prevalent, when mixed with the clay soil, will grow tolerable good vines, and the same when they are reared upon a coarse limestone well worked. Kiffer produces only weak wine. Schistous marl, where it occurs decomposed, yields a fertile soil for the vine. When mingled with round stones or sand it is very favourable, but no remarkable wine is produced from it, though its dark colour is favourable for maturing the fruit. The Germans dress their vines with strong manures, which the French and Portuguese pronounce to be injurious. Land gained from the water, or newly alluvial, is not at all favourable for the vine. It is too wet in moist seasons, and even by nature. On the other hand, clay and sand, arising from the decompo-

sition of different species of rock, is found too arid for the German vines in dry seasons.

The grapes which are preferred for general cultivation are the riessling, a small white species, harsh in taste, but in hot seasons furnishing a remarkably good wine, having a fine bouquet. The kleinberger, a productive species, ripens easily, and a small Orleans variety is very widely cultivated. These, with the Traminer, are considered the fruit producing the best wines. The Orleans is much cultivated about Rudesheim, thriving well on a rocky soil. The vines are all of the low training, about three or four feet high. The produce of all the vineyards it is impossible to ascertain. The circle of Coblentz contains nearly seventeen thousand Prussian acres, each of which is calculated to yield wine to about fifteen pounds sterling annually in value. The circle of Treves, containing twenty-three hundred acres, gives an annual product of thirty-nine pounds sterling each acre. In Wirtemberg, the product of the kingdom, or of sixty-one thousand five hundred acres, has been valued at about four million of florins. The true Hochheimer is grown to the eastward of Mentz, at Hochheim, between that place and Frankfort. Each acre contains four thousand plants. The produce, in a tolerable year, is twelve large casks, which sell for about one hundred and fifty pounds each. It was once the property of General Kellermann, and since of Prince Metternich. Worms was formerly reported to grow a hundred and fifty fuders within the territories of the city, "sweeter than virgin's milk" (liebfrauen milch).

The vintage does not take place until the grapes are more than perfectly mature, in fact, until they are soft from over ripeness and on the verge of change. They are carefully gathered, the bad fruit picked out, and with the stalks put aside. The wine of the pressings is separated, *most vom ersten drüch*, *vom nackdrüch*. The more celebrated of these wines are all fermented in casks, and then, after being repeatedly racked, suffered to remain for years in large fuders* to acquire perfection by time. These huge casks contain each about three hundred and fifty tuns. The wines mellow best in large vessels; hence the celebrated Heidelberg tun, thirty-one feet long by twenty-one high, and holding one hundred and fifty fuders, or six hundred hogsheads; the second and

* A common fuder contains about two hundred and fifty gallons.

later of these was built at Heidelberg in 1663. That which preceded it held but one hundred and thirty-two fuders. This tun is decorated with all kinds of fantastical ornaments. Tübingen, Grüningeu, and Königstein, could all boast of their enormous tuns, in which the white wines of the country were thought to mellow better than in casks of less dimensions. The last was made at Fort Königstein, near Dresden, by General Kyaw, in 1725, seventeen Dresden ells long, and twelve wide at the bung. It contained 3709 hogsheads. A Latin inscriptiou affixed to it was to the following purport: "Welcome traveller, admire this monument, dedicated to festivity (in order to exhilarate the mind with a glass in the year 1725), by Frederick Augustus, King of Poland, Elector of Saxony, the father of his country, the Titus of the age, the delight of mankind. Therefore drink to the health of the sovereign, the country, the electoral family, and the Baron Kyaw, governor of Königstein; and if thou art able, according to the capacity of this tun, the most capacious of casks, drink to the prosperity of the whole universe—and so, farewell!" These tuns were once kept carefully filled. The Germans always had the reputation of being good drinkers, and of taking care of the "liquor they loved." Misson says, in his Travels, that he formerly saw at Nuremberg the public cellar, two hundred and fifty paces long, and containing twenty thousand ahms of wine.

The German are a distinct class in character from all other wines. They are generous, drier than the French, finely flavoured, eudure age beyond example, and have of late years been much improved in quality by the sedulous attention bestowed upon their growth, aud a better management at the vintage. Indeed, the teudency to improvement in all the viue countries of the Rhine is too obvious to be passed over, and the wines show a corresponding excelleuce. They average about 12·08 per ceut. of alcohol. They have beeu supposed to turn acid sooner than other wines, though the reverse is a remarkable fact. On this subject a recent author observes, with respect to Moselle, and the same will hold good with other wines of Rhenish character, that "The country which borders on the Moselle produces abundance of grapes, aud some of the wiues have an agreeable flavour, especially the vintage of Brauneberg. This highly-flavoured wine has within the last

seven years become a fashionable beverage at the first tables in London, and when iced in summer, nothing can be more grateful. Some of it has the flavour of the Frontignan grape, without its sweetness. This wine has a singular quality; it is difficult to make it into vinegar. The author accidentally discovered this property by putting a few bottles into a green-house, and afterwards into his cellar, for the purpose of using it as vinegar; but the following spring he was surprised to find that no acetous fermentation had taken place. It has been generally supposed in England that the wines of the Rhine and Moselle are more acid than the white wines of France; but if the above experiment may be any criterion of the qualities of the former, it would prove that they are less acid than Sauterne, Barsac, and the Graves; for it is well known that it is necessary to sulphur the casks of these wines to prevent the acetous fermentation taking place. Acids are supposed to generate gout, and in England Rhine wines are on this account forbidden to gouty subjects; yet the gout is a disease rarely known on the banks of the Rhine, where hardly any other wine is drunk. We therefore conceive this to be a vulgar error, and that no wine is better for a gouty patient than that of the Rhine; the author can testify this from his own experience, and the evidence (which can be more depended on) of an eminent English physician, who practised at Mayence for many years, and was of opinion that the strong wines of the Rhine were extremely salutary, and that they contained less acid than any other; moreover, they are never saturated with brandy, as the French white wines are. Although Moselle is become so fashionable, it is a cheap wine, the best Brauneberg only costing twelve Napoleons per ahm, of thirty English imperial gallons, and, including the duties and all expenses, may be imported for three shillings a bottle into England."

That this is correct, as far as regards himself, the writer of the present volume can vouch. If he take no more than a glass or two of port, so that the spirit taken with it is not enough to stimulate the stomach, acidity is certain to be felt, but this is never experienced with sound Rhenish wine. Some writers account for this property in German wines by the complete proportion of the constituent parts, and their equal balance in the fermentation. Hence the difficulty of deranging them

from the closeness of their affinities. If the tartaric acid be too abundant, the wine will be apt to become sour. If the saccharine principle be too great for the quantity of tartar, there will be a part of it unconverted, or if the leaven be deficient, the fermentation will not be perfected. Where, however, the necessary quantities are in due proportion to each other, the wine will be perfect and enduring, possessing no acidity, and such is, therefore, the safest wine to be drunk (if it be the real wine well made) of any blood of the grape whatever.

To proceed northward with the "Rhine wines," following the course of the main river. The ordinary wines are not worthy of note: but wines up to the best class are found in great variety. The Liebfraucnmilch, already mentioned, is a well-bodied wine, grown at Worms, and generally fetches a good price. The same may be said of the wines of Kœsterick, near Mayence, and those from Scharlachberg are equally full bodied and well flavoured. Nierstein, Oppenheim, Laubenheim, and Gaubischeim are considered to yield excellent growths, but that of Deidesheim is held to be the best; the last of 1825 sells for twelve pounds sterling the ahm, of thirty gallons, in the present year. The prices vary much, and depend in a great degree upon the age of the wine. New wine may be had from fifteenpence the *maas** to four and sevenpence. Very aged wine from eight or ten up to eighteen shillings the bottle. The Rhenish wines, and particularly Hock, drunk in their native territory, were not offered at table in respectable families until of late, before they were nearly, if not quite, fifty years of age. It is different now. They are drunk out of green glasses as thin as paper, so that the stranger almost wonders they are strong enough to retain the liquid. It it thought the flavour is improved by thin glasses. Perhaps this is mere fancy, but every one experiences how much pleasanter Château Margaux drinks this way at our own tables.

The river Maine runs up to Frankfort close to Mayence, and on its banks the little town of Hochheim stands upon an elevated spot of ground, in the full blaze of the sun. From Hochheim is derived the name of Hock, too generally applied in England to all German wines. No trees are seen to

* A little more than two quarts.

obstruct the genial fire from the sky, which the Germans deem so needful to render their vintages propitious, nor does it favour them to the full glow required more than once in five or six years, so as to perfect a vintage of tolerable renown. The town stands in the midst of vineyards. That which produces the Hochheimer of the first growth is about eight acres in extent, and is situated on a spot well sheltered from the north winds, upon a little hill behind the deanery. The Hochheimer dom, near the village, is in high request. The wine of 1766 and 1775 fetched forty-two and fifty pounds the ahm, before the fancy for old wines was given up. The other growths of this wine come from the surrounding vineyards. The whole eastern bank of the Rhine to Lorch, or the Rheingau, throughout its entire extent, has been remarkable for its wines during many centuries. It was once the property of the Church. The whole district is a delicious vine-garden. In this favoured spot grows the castle, or Schloss-Johannesberger, once the property of the Church, and also of the Prince of Orange. Johannesberg is a town, with its castle (schloss), on the right bank of the Rhine below Mentz. The Johannesberger once took the lead in the wines of the Rhine. The vines are grown over the vaults of the castle, and were very near being destroyed by General Hoche. The quantity of wine is not large. The price of the vintage of 1811 was about thirty-six pounds the ahm, of thirty gallons. That of 1779 sold for seventy-five in the year 1833. The vineyard, as before observed, is the property of Prince Metternich. The other growths near the same vine-ground are excellent. The Johannesberger of P. A. Mumm of Cologne and Johannesberg, his own growth of 1822, brought, in 1833, from twenty-five to sixty pounds the ahm, and it still ranks quite as high.

There is at present a great rivalry between the two vineyards of Johannesberg and Steinberg, and in some years Steinberg has fetched a much higher price than Johannesberg. In 1836, a stuckfass of Steinberg of 1822, which, on account of its great delicacy and excellence, was named "die Brant" (the "Bride"), was sold by auction, and bought by several crowned heads and three London wine merchants, at about twenty shillings the bottle, taken at the cellars at Eberbach. The great care and energy displayed by Mr. Koepp, kellermeister of the Duke of Nassau, in the manage-

ment of the vineyard, will no doubt much increase its present popularity. In addition to this, the Schloss-Johannesberg being under a kind of trusteeship, or sequestration, for the payment of many years' arrears of taxes due to the state of Nassau, and still repudiated by Prince Metternich, has in some measure prejudiced the wines, so that the two vineyards may be now considered upon a perfect equality. For this and some other recent information connected with the subject, the author is indebted to the house of Eddison, in Walbrook, the large connexion of which with German wines is well known.

Rudesheim and its Hinterhausen produce wines of the first Rhine growths: the ahm of 1811 brings fifty-five pounds and upwards. The highest quality is called Rudesheimerberg. The Steinberger, belonging to the Duke of Nassau, takes rank after the Schloss-Johannesberger among these wines. It has the greatest strength, and yet is one of the most delicate, and even sweetly flavoured. That called the "Cabinet," from the vintage of 1811, brought seventy pounds sterling the ahm. In 1811 it was sold on the spot for 5½ florins, or half a guinea the bottle. The quantity of the first growth made is small. Graefenberg, which was once the property of the Church, produces very choice wine, which carries a price equal to the Rudesheimer.

Marcobrunner is an excellent wine, of a fine flavour, especially when the vintage has taken place in a warm year. The vineyards of Roth and Konigsbach grow excellent wines. The wine of Bacharach was formerly celebrated, as before mentioned, but time produces revolutions in the history of wines as well as in that of empires. Notwithstanding the quality of endurance many of the second-rate growths possess, and a freedom from acidity equal to those which hold the first place, they are by no means so well known as they ought to be. The oldest wine which is commonly offered to the purchaser is that of 1748, a year when the season was exceedingly propitious to the vintage. Older wines may be met with, but less frequently. The excellence of the wine in any particular year always depends more upon the warmth of the season than upon any other cause, and the high price of the wine in corresponding years rates accordingly. The Germans say, the wines of the best body are made on the higher lands, and the worst on the lower; the last requiring the longest

keeping, to render them mellow for drinking. The stocks of some of the merchants are very large, although the wine is not kept out of the market so long as formerly. It is a mistaken notion that the virtue of any wine depends upon its great age. The wines of 1783 bear a very high character—the highest of any during the last century. There is something unaccountable in the extraordinary durability of wines grown so far to the north, where the slightest increase of warmth in a season causes such a difference in the quality of the wine. While strong southern wines suffer from age after a certain period of years in bottle, and begin to deteriorate sensibly, the Rhine wines seem possessed of inextinguishable vitality, and set the greater part of rivalry in keeping at defiance. It is generally found that wines with the smaller proportion of alcohol change sooner than those which are strong, yet the Rhenish wines averaging so little spirit, will endure longer, and continue to improve by age as much as the more potent wines of the South, having double the alcoholic strength. The best vintages were 1748, 1766, 1779, 1783, 1800, 1802, 1811, 1822, and 1834. The Steinwein of 1748 brought, in 1832, seventy pounds the ahm of thirty imperial gallons. This may serve to show how much these wines gain, in repute at least, by age. This fashion in Germany, of valuing wine by its age alone, is deservedly gone out. It is no proof of any good quality in the wine beyond its power of endurance. The Rhine wines are diuretic in quality, and the Germans say, "keep off the doctor." They are remarkable for promoting cheerfulness in the native constitution.

On the whole, the wines of Bischeim, Assmannshäuser, and Laubenheim, are very pleasant wines; those of rather more strength are Marcobrunner, Rudesheimer, and Nierssteiner, those of Johannisberg and Geissenheim belonging to Count Ingelheim, and Hochheim, give the most perfect delicacy and aroma, and freedom from acidity. The Germans themselves say, "*Rhein-wein, fein wein; Neeker-wein, leeker wein; Franken-wein, tranken wein; Mosel-wein, unnosel wein,*" "Rhine wine is good; Neckar pleasant; Frankfort bad; Moselle innocent."

An effervescing Rhenish has recently been produced. It is made from the lower wine growths, but is by no means worthy of the regard which some would claim for it, being

destitute of the qualities of genuine Rhenish, and equally so of the fine flavour of Champagne.

A letter to the writer states that, "With regard to the effervescent Rhenish wines, which have lately come into notice, they are made after the example of Champagne wines. They are generally taken from a common growth, and the effervescence is produced by the carbonic acid gas in the process of fermentation. The experiment is not new: it was successful many years ago; but after all it will never answer, for although the effervescence of a Champagne wine may be thus obtained, yet the delicious flavour which characterises that wine will be always wanting, for that flavour is derived from the soil, and no art can substitute it. Besides, it must be observed, that there is an immense difference between the Rhenish wines and those of Champagne, not only in the making, but also in character. The grape of the former requires, in order to be really good, the most perfect maturity, even to an overripe state, and the grape of the latter does not admit of its being more than ripe; consequently, all the good qualities of the Rhenish wine, which are brought forth by the great maturity of the grape, are entirely lost when thus prematurely used, and for this reason nothing particular can be expected from an effervescent Rhenish wine. The process is resorted to, principally, with a view to get rid of the lower growth of wines, and with no other."

The red wines of the Rhine are not of extraordinary quality compared to the white, yet the red grape becomes more perfectly ripe than the white on the Rhine. The Assmannshäuser is the first, grown near Rudesheim. It closely resembles some of the better growths of France. At Ingelheim, near Mayence, and near the Ahr, there are good red wines of the country. Near Lintz, at Neuwied, a good wine, called Blischert, is made. Konigsbach, on the left bank of the Rhine, Altenahr, Reeh, and Kesseling, yield ordinary red growths.

The Moselle wines are light, and secondary to those of the Rhine and Maine. They are plentiful and cheap, some of them resembling the growths of France. They are sometimes sold as low as a penny the bottle in the country. The most celebrated is the Scarzberger. The varieties grown near Treves are numerous. A Dutch merchant is said to have

paid the Abbey of Maximinus for a variety called Grünhäuser, in 1793, no less than eleven hundred and forty-four florins for two hundred and ninety English gallons in the vat. This wine was formerly styled the "Nectar of the Moselle." It made men cheerful when drunk in a quantity, and did good the next day, leaving the bosom and head without disorder—such is the character of it by the German jurist Hontheim. These wines being light, with a good flavour, have of late become favourites in England. They will not keep so long as the Rhine wines, but they are abundant and wholesome, as indeed are all the Rhine wines, particularly for convalescent persons after low fevers. Near Treves are grown the wines of Brauneberg, Wehlen, Graach, Zeltingen, and Piesport. The wines of Rinsport and Becherbach are considered of secondary rank. The wines of Cusel and Valdrach, near Treves, are thought to be possessed of diuretic properties, and even to cure the gravel. In about five years these wines reach the utmost point of perfection for drinking. They will not keep more than ten or twelve in prime condition.

The wines called "wines of the Ahr," resemble those of the Moselle, except that they will keep longer. Some of them are red. The character of the wines of the Nahe may be included in the foregoing descriptions, being intrinsically German.

The "wines of the Neckar" are made from the best French, Hungarian, and even Cyprus vines. The most celebrated are those of Bessingheim. They are of a light red colour, not deep, and of tolerable flavour and bouquet.

Wisbaden grows some good wines at Schierstein, and Epstein, near Frankfort. The best wines of Baden are produced in the seigniory of Badenweiler, near Fribourg. At Heidelberg, the great tun used to be filled with the wine of that neighbourhood, boasted to be a hundred and twenty years old, but it gave the wine no advantage over other Neckar growths. There are many good wines grown in Baden, and particularly near Offenburg. The Khugelberger has gained a certain reputation, and at Durbach, where the Johannisberg grape has been planted, a wine is now produced called the Johannisberger Durbach, which bids fair to stand a comparison with many of the wines of the Rheingau.

In this locality is also to be found a good red wine called Zoller, which in some years is equal to Assmannshäuser. In Baden the ahm or aum contains three or four more gallons than in the Rheingau. The red wines of Wangen are much esteemed in the country of Bavaria, but they are very ordinary. Würzburg grows the Stein and Leisten wines. The first is produced upon a mountain so called, sold very dear, and called "wine of the Holy Spirit" by the Hospital of Würzburg, to which it belongs. The Leisten wines are produced upon Mount St. Nicolas. Straw wines are made in Franconia. A *vin de liqueur*, called Calmus, like the sweet wines of Hungary, is made in the territory of Frankfort, at Aschaffenbourg. The best vineyards are those of Bischofsheim. Some wines are made in Saxony, but they are of little worth. Meissen, near Dresden, and Guben, produce the best. Naumberg makes some small wines, like the inferior Burgundies.

The importation of German wines into England in 1831 was about seventy thousand gallons.

The better wines of Germany are of a drier quality than those of France, and, while compared to the *vins de Graves*, they are in reality of a very different character. Some of them have what the French call the *goût de pierre;* but as the soils that produce them are very various, so no two kinds exactly resemble each other, even to a taste not over nice. Perhaps the better kinds are the most wholesome wines in the world. The "golden wine" of the father river deserves its peculiar altar to Bacchus.

In order to secure good wine, none but respectable merchants in these wines, of all others, should be treated with. Persons ignorant of the character of the best German wines are continually liable to impositions. Travelling dealers mingle, on the banks of the Rhine, the low-priced palatinate growths with some of the analogous products of France. They adopt the aum cask, or the case, as may be required, and put flourishing seals upon the corks when the wine is sold in bottle, telling extravagant falsehoods of its history and excellencies. By this means frauds are continually practised upon private individuals in regard to the wines of the Rhine, the more successful in proportion to the want of knowledge respecting them prevalent in England. Low Hoch and Moselle wines

are constantly sold at prices in this way when there is a rage for everything at small cost, so that the quality is taken upon trust, on the strength of the cheapness. Good German wines, like all others, must be paid for.

The ahm of wine differs in quantity. The Rheingau merchants send wines to England by the ahm of thirty imperial gallons. The common German ahm has been usually reckoned at forty old English gallons, and a little more. About "two ahms and a half formerly made a pipe,"—*ein weinfass von anderhalb ahm, ein pipe.* A *both*, or butt, contained three ahms, or a hundred and twenty-six gallons. A Rhenish wine-cask of eight ahms, called a *fuder*, or *stuckfass*, contained about two hundred and fifty gallons, or a tun of Rhenish, according to the old measure; but wine is now almost universally sold by the ahm alone. (For imports and classes, see Appendix.)

Switzerland does not supply more wine than suffices for home consumption. The best is produced in the canton called the Grisons. It is named Chiavenna wine, and is of an aromatic flavour, white from the red grape. In the Valais they make a Malvasia of good quality. Both these are white wines of the luscious kind. The Valais also produces red wines, made at La Marque and Coquempin, in the district of Martigny.

The other wines are for the most part red. Schaffhausen produces them in plenty, and of tolerable quality. At Basle they make the "wine of blood," as it is called, from the combat of Birs, in the reign of Louis XI. of France, when sixteen hundred Swiss fought thirty thousand French, and only sixteen survived, dying more of the fatigue of the combat than by the power of the enemy. These wines are also known as those of the Hospital and St. Jaques. The red wines of Erlach, in Berne, are good. The red of Neufchâtel is equal to the third class of Burgundy. St. Gall affords tolerable wines. In the Valteline the red wines are remarkable for durability, and are of very good quality. They make a wine in that district which much resembles the aromatic wines of the south of France. A very generous red wine is made in the Valteline from the red grape, which is suffered to hang on the vine until November, by which time the fruit has become very mature. It is then gathered, and carried to a large room or barn, and hung up by the stems for two or

three months. The bunches are picked over with great care, and every decayed or injured grape is thrown aside, so that none but sound fruit is submitted to the press. The must is placed to ferment in an open vessel, and twice a day it is skimmed. It continues to ferment for a week or fortnight, according to the weather, during which the operation of skimming is constantly repeated. After the fermentation is over it is put into a close vessel, and set by for a twelvemonth. This wine is remarkably luscious, and will keep well for a century, having great strength and body. The Swiss, when it is a year old, bore a hole two-thirds of the way up the head of the cask, drink the wine down to the hole, and then refill the cask.

The canton of Vaud produces the largest quantity of wine. The wines of Cully and Désalés, near Lausanne, resemble much the dry wines of the Rhine in quality, and are of considerable durability.

The following extract of a letter given *verbatim*, is from a German correspondent, and will serve as a general corroboration of the previous statements.

"The Moselle, which, as indicative of its milder character in appearance and produce, is frequently called by the German poets the 'Bride of the Rhine,' flows into this river at Coblentz, and the wines grown on its banks are all of a lighter and less spirituous description than those from the Rhine. They are appreciated for their peculiar perfume, and are, principally during the summer, a very delicious beverage. They are recommended frequently by physicians as a protective measure against the malady of the stone, having a relieving effect, and that disease having never been known in those districts.

"The best Moselle wines range as follows:—

"The Grünhäuser (a former property of the Abbey Maximin at Treves).

"The Feltinger: the best vineyards here are those of the old Schloss (Castle), the Brauneberger, Pisporter, Graacher, Wehlener, &c. But in good vintages these wines are surpassed by the Scharzberger, and especially by the Scharzhofberger, a denomination for the hill, which was formerly a priory estate, and which produces the best of this description.

"The situation of the Scharzberg falls back from the Moselle for about five English miles from Treves, between the

Moselle and the Isar, and is, therefore, called also Fleckenvine. The Thiergärtner ranges in the same category.

"The Moselle wines are sold in fuder casks of 6½ Cologne aums of 30 gallons each.

"The Ahr, which falls into the Rhine opposite Linz, has a home notoriety for its red wines, but is not much known abroad, yet its productions are agreeable and wholesome, and not very powerful. The best marks are those of Walporzheim, Ahrweiler, Bodendorf, and of good vintages bear in taste a resemblance to a light Burgundy wine. They are sold per aum of 30 gallons.

"The whole wine production of the Prussian Rhenish province extends over a superficial content of 50,625 morgen (acres), which give in a good vintage about 500,000 eimer, or 250,000 aums.

"The sentence, 'The grapes preferred for general cultivation are the Riessling, a small white species, harsh in taste, but in hot seasons furnishing a remarkably fine wine, having a fine bouquet. The Kleinberger, a productive species, which ripens easily, and a small Orleans variety,' is correct; but there ought to be joined to it, 'The last description of grapes is cultivated only in the boundary of Rudesheim, whilst in all the other first-rate vineyards of the Rheingau the preference is given to the Riessling.' This species gives at full maturity incontestably the finest and most flavoured wines, which also fetch the highest prices.

"However, in inferior years, when the Riessling does not ripen entirely, the wines derived from them are in the same proportion inferior to those from the other softer grape sorts, and even out of inferior vineyards.

"The proprietors of large wine estates are always anxious to gather and press the different grape sorts separately, in order to obtain as far as possible an uniform harmonious wine, which operates vastly on its quality. The little wine-grower has not this advantage, and must vintage altogether.

"The head of the Rhenish wines belongs indisputably to those of the Castle of Johannisberg. This estate was originally a convent, founded in the year 1106, by Kurmaintz, which held it until 1715, when it became the property of the High-chapter at Fuld.

"In 1802, in consequence of the peace of Lüneville, Nassau-Oranien took possession of it, and in 1807 it was given

by the Emperor Napoleon to Marshal Kellermann, who remained its lord until 1815, when it fell, in consequence of the Congress of Vienna, to the share of the Emperor of Austria, who in his turn gave it to its present holder, Prince Metternich, as Austrian and male-hereditary fief.

"His highness, who entertains a particular predilection for this beautiful estate, has shown for it a high personal interest, and has spared no expense nor means to obtain through his administration the utmost perfection in regard to the culture of the vine and the treatment of the wines, so that the Johannisberg may be considered as a model school for both these main objects.

"The superficial content of the vineyard is 66½ morgen (acres), which have produced in the better years as follows :—

1822, 33½	stück	One stück contains 8 Cologne aums, and one aum 30 imperial gallons.
1825, 31	„	
1834, 51½	„	
1842, 34	„	
1846, 45	„	

"The wines of the best vintages are sold in bottles only, which are filled under the immediate direction of the Castle Cellar Administration, and bear labels signed by this authority; the corks are branded, sealed, and stamped with the prince's arms. The sale is entrusted exclusively to the firm of Mr. D. Leiden, at Cologne, who appointed Mr. Charles Ellis, of Richmond and London, agent for the British Isles.

"The varieties are distinguished by different coloured seals. The first of these varieties has a blue seal, and is probably not only the finest German wine, but the highest specimen of what the vine can produce. For this quality the grapes are selected with scrupulous care, the best berries only being taken from the ripest bunches. The juice is expressed from them with great force, so that not a drop of the precious liquid may be lost. It can only be made in the most favourable years, and the quantity then never exceeds two stücks, or sixteen aums of 30 gallons each.

"The wines derived from inferior vintages are sold periodically at public auction in the casks, and their produce is generally very little. The following shows that in the year

1832, 34	stücks	have given	an	average	price	of 280	francs	per stück.
1833, 57½	„	„	„	„	„	560	„	„
1837, 5	„	„	„	„	„	77	„	„
1838, 13½	„	„	„	„	„	174	„	„
1839, 28½	„	„	„	„	„	515	„	„

"The vintage usually takes place only in the beginning of November, as it is highly desirable to keep the grapes on the vine as long as possible, in order to offer them the chance of overripening. Cold or wet weather, however, occasions often an earlier vintage. The Village Johannisberg and the vineyards on the back of the castle give but inferior wines, which are not to be compared with the castle wines, and range far below the first marks of the Rheingau.

"The Steinberg is a domain belonging to the Duke of Nassau, and cultivated exclusively with Riessling; in good years it produces wines of the first rank, which have great merit with regard to their fragrant bouquet and vivid flavour. The whole vineyard, removed from the river-side about three English miles, is surrounded by a wall, and measures 108 morgen (acres). Its product, in 1846, amounted to 100 stück; the wines are generally disposed of in the wood by public auction, of which the most recent has obtained 200 francs; 1700 to 700 francs for vintage 1848, and 7000 francs for vintage 1846, per stück.

"The manipulation of the vine and of the wine is analogous to that of the Johannisberg. The Steinberg was formerly a dependency of the neighbouring abbey Eberbach, which was transformed into a domain at the abolition of the convents, and since that time serves as a penitentiary.

"A few years ago a large hospital for the insane was built on one of the neighbouring hills, whose beautiful construction offers a charming sight from the Rhine.

"The vaults of the abbey contain the Cabinet of the Duke of Nassau, which is a rich collection of his finest wines from all vintages and situations.

"Marcobrunn extends over an elevated plain between Hattenheim and Erbach, and produces also very fine wines, especially the Auslaas, which is made only in good vintages, the ripest grapes being gathered and vintaged separately. A stück cask of this description of wine from the year 1846 has been sold at 5000 francs. The boundary itself subdivides into a great number of small possessions. The Count of Schönborn is the greatest holder there; next to him is the Duke of Nassau.

"The Graefenberg, near Kiederich, is not of a great extent, but furnishes also very good wines. They are distinguished

by a peculiar flavour, and are almost of as high a standing as the Marcobrunner.

"The same may be said of a hill near Geisenheim, the Rothenberg, which belongs principally to the Count of Ingelheim.

"Rudesheim is that district in the Rheingau which offers the greatest difference and variety in the quality of the wines; it extends from the lowest to the very highest. The Rudesheimer-berg and hinterhaus range amongst the best wines from the Rheingau—the first exceedingly powerful (Orleans grapes), the latter of a more vivid bouquet (Riessling grapes). In good vintages they produce likewise a remarkably fine Auslaas.

"Hochheim has the same standing as Rudesheim, and, although situated on the banks of the Maine, it is yet counted amongst the Rhenish wines. The best vineyard is the Hochheimer Domdechant, belonging formerly to the chapter of Maintz. It is extending from the church down the hill, contains about 8 morgen (acres), and is likewise far the greater part a domain of the Duke of Nassau. Its wines from good vintages fetch heavy prices.

"The Rheingau produces but one renowned and noted description of red wine, the Assmannshäuser, about three English miles from Rudesheim, down the river. This wine has a good deal of strength and of delicate flavour, and is disposed of in good years from 125 to 300 francs per aum. The Duke of Nassau is also here the chief proprietor."

[The Atlantic Islands.]

CHAPTER IX.

WINES OF PORTUGAL AND MADEIRA.

THE METHUEN TREATY—QUANTITY OF WINE IMPORTED IN 1700 AND 1800—MONOPOLY OF WINES GIVEN TO A COMPANY—CONDUCT OF THE COMPANY—VINEYARDS OF THE DOURO—OF MADEIRA AND THE AZORES.

THE history of no country in the world furnished an example of greater political absurdity than our own, in the conclusion with Portugal of what was commonly called the Methuen treaty. (See Appendix, No. XII.) By this treaty Englishmen were subsequently compelled to drink the fiery adulterations of an interested wine company, and from the coarseness of their wines exposed to imitations of them without end, from materials some of which had never been in Portugal. Sophistications were complained of in 1730, but greatly increased after the monopoly had been granted. The delusion of encouraging our woollen manufactures was the bait held out in exchange for the rejection of better wine, and the

substitution of a third-rate article. The objections to a treaty of such a nature are obvious enough to every impartial reasoner.

Had the wine of Oporto been of a first-rate class, and Englishmen a little less attached to coarse wines of a hot character, it is probable the difference in the wines themselves, unless indeed the adulteration was very gradual, would have struck them by its singularity. It is impossible to believe that the port wines of 1700 and 1800 were of the same degree of excellence. The lapse of a century would, it is true, render the comparison impossible in the span of human life. This, no doubt, prevented a change in the original quality of the wine from being discovered. The writer, a few years ago, dining with a diplomatic character belonging to Portugal, drank port wine, he believes, for the first time in his life, and a better wine he never tasted; but this was of a kind called *vinhos separados*, not export wine. It wanted the delicacy of the highest wines of France, but it was everything else that could be desired: stomachic, mellow, of good strength, and colour. It was what all port wine drunk in England should be in respect to body, flavour, and quality. The author was informed it had been brought over from Lisbon out of the wine sent there to be consumed by the better classes in the country. The mystery was revealed; it had not been prepared for the English market.

The increase in the consumption of the wine of Oporto, found in comparing the consumption of the first ten years of the last century with the like number of the present, is striking: it is as follows:—

	Tuns.	Hhds.	Gall.
Wines imported from 1700 to 1710 . .	81,293	0	9
Ditto 1800 to 1810 . .	222,022	2	52
Difference in 1810 .	140,729	2	43

The non-importation of the pure wine first took place about 1715. It was then the Portuguese began to mingle a little brandy with the wines they sent to England. About this time, or two years later, a duty of 55*l.* 5s. per tun was laid upon French wines, while Portuguese wines were admitted at 7*l.* 5s. 3d. a tun! It is evident, therefore, that the demand for the worst wine arose out of the cheapness of one article, and the almost prohibitive duty placed

upon the other—in other words, that our taste for port wine was forced upon us by our rulers, really out of jealousy towards France. There is no necessity to search for any other reason why port wine was so generally drunk in England. It was no intrinsic worth in the wines themselves which introduced them. Englishmen become wedded to long usage, and numbers believed port wine the only real red wine in the world, and shivered whenever Romanèe Conti, or Lafitte, was named.

In 1756 a monopoly of the wine country of the Upper Douro was given to a company. They obtained a charter through the Marquis of Pombal, whose wines they *gratefully* took in return. They fixed the price of the wines, and restricted the limits of the vineyards, outraging private property and preventing competition. The ostensible objects of the company were plausibly expressed.* It was alleged that inferior wines, from bad situations, had been bought and lotted with those of the factory; that the farmers did not allow the wine fully to ferment; that it was stopped in the fermentation by throwing in brandy—"a diabolical act!" (so styled)—by not separating the white from the black grapes, and "by using confections." Thus, one main plea was to prevent adulterations of the wines, though there was no evidence that anything but a small quantity of brandy had ever till then been mingled with them, from the unfounded notion that it was essential to their durability. This first

* The following are some of those useful regulations which won over all opposition, for they are in themselves good. They turned out, however, to be prohibitive only upon those who were *not* of the company:

"1. That the district calculated for the growth of the export wines should be marked out, and the mixture of these wines with others from without the boundary prohibited.

"2. That no one should be permitted to cover the vines with litter, as this operation, though it considerably augments the produce, tends to deteriorate the quality of the wine.

"3. That, in the manufacture of the wine, no one should use elderberries, which not only give it a false and evanescent colour, but also change its natural flavour.

"4. That after each vintage, a list should be made out of the number of pipes in every cellar within the district; and that the wine-tasters of the company, and others to be nominated by the farmers, should prove them, and arrange them in classes, distinguishing such as were fit for exportation, and delivering to the proprietors a corresponding ticket.

"5. That the market should be opened on a certain day, and should be free to all English merchants, to such Portuguese as were qualified as legitimate exporters, and to the company itself."

happened, as mentioned above, about 1715. In 1756 began the era of the deterioration of these wines.

How the company proceeded in exemplifying their zeal for the preservation of the genuine character of the wine is a well-known history. It may first be necessary to remark that no wine, let it be grown where it may, can ever approach to the character of a first, or even of a second rate wine, unless it be the pure juice of the grape, unmingled with anything but wine, and that of its own class. Wine of a prime growth, if mingled with an inferior kind of ever so good a quality, is apt to become cloudy, and to be deteriorated, but, mingled with brandy, its distinct and delicate character is destroyed. The company were, as they alleged, well convinced of this truth. They were not ignorant that the wines of France, of the first class, were the finest in the world, unmatched out of that country. Did they then determine to raise the Portuguese wines into competition with them?

They did no such thing. They began, it is true, by proscribing all offenders, but only that they might themselves put on the character. They levied fines upon all other persons who had elderberries in their possession, and got the trees rooted up. They then began their own career of amendment, by buying or making brandy, and pleading the necessity for its use in adulterating the wine in a greater degree than before. They charged the taste of Englishmen as their excuse, and gradually proceeded to encourage the mixing together all sorts of grapes, and fermenting their must carelessly, with a view to quantity. They grubbed up the fine old vines, and got those substituted of less virtue but fuller bearing. They did not spare brandy in the operation, nor elderberries, nor burnt corn, nor anything that would answer to colour the wine when it was not thought deep enough. They created at length such a wine as the world never before saw. This wine was sometimes so *improved* by subsequent adulterations in London, where the imitations of port wine were found to be facile, in consequence of the absence in much of the wine imported of the prime qualities of good wine, that a vast quantity more was sold than Oporto with its company had ever been able to export.

The company, as soon as it was installed in full plenitude

of monopoly, guided by merchants from England, settled in the country, not only blended good and bad growths together, to make one profitable class of wine, but raised the price to the consumer, while deteriorating the article he purchased. The prices were soon carried far beyond what they had been originally, until the Portuguese themselves complained of the extortion. The privileges of the company were then so far moderated, that the export wines alone were left wholly in their hands, and so remained, quadrupled in price to Englishmen, and debased in quality. Englishmen were thus forced to drink worse wine, and that wine exclusively. In 1730 good port wine was sold in England at two shillings the bottle, and white wine of Portugal at the same price. Canary was a third dearer; French wine was so taxed, that it was charged double that of Portugal.

If the company had acted up to its professions, the wine of Oporto, which is naturally of a good character, would have been improved into a wine of the first class. A generous and honourable competition with French wines, until by perseverance, and a liberal outlay of capital, wine approaching Burgundy, Côte Rôti, or Bourdeaux, was produced, would have been something meriting praise, and every step attained in the improvement of the wine would have rendered imitation in England more difficult, by which means the British nation would have escaped the impositions practised upon it from the facility of imitation. Five-eighths of the wine brought to England is so coarse, and is such a medley of ill-flavoured heterogeneous vine produce, brandy, and other matters, that any ingenious person may increase one pipe to three by the addition of unexciseable articles, without any fresh injury to the stomach of the consumer, or to the appearance of the wine.

No wine is worthy to be drunk in a highly-civilised community which is not made of grapes alone, carefully selected from vines upon which practised labour has bestowed the proper culture, and that is not carried through the operations of the vintage and into the cellar with the most watchful attention. Such wine must be exported with scrupulous regard to the nature of the article. In Spain, where, in consequence of a demand for low-priced sherry, Moguer wine is mixed with a better kind in such a proportion as to reduce the

butt to the intended value, there is no disguise in the matter. The grower disposes of the wine to the merchant for what it really is, and the merchant exports it under the same character. But the best class of these wines cannot be successfully imitated, for the growth and manufacture have gone on improving; and though the absurd custom of adding two bottles of brandy to the sherry butt continues, no other mixture whatever is permitted in the country. A just proportion of brandy exists in southern wines naturally, and, from the same consequence, in those of Oporto. What is added to wines by nature of so much strength must be injurious, and can never assimilate, as the natural alcohol does, with the wine, even during fermentation. The trade may talk of fretting in, "working," and what not; the commingling is never perfect, and the alcohol uncombined is so much more noxious to the stomach of the drinker, who, in fact, drinks not water and brandy, but wine and brandy. What, then, is to be said of the addition of brandy to wine naturally strong, and that, too, during the process of fermentation, when the must or wine is in the most delicate state of transition, and the least interference is destructive to its quality? This has been done with the Portuguese wines in the teeth of better knowledge, to the extent of four and a half gallons per pipe at the beginning of the present century. Now, no less than twelve gallons are thrown in during fermentation! Then, the colour of the skin of the grape not being deemed deep enough, elderberry colouring is added, according to fancy, and four gallons more of brandy with it. The wine now goes into Oporto, is racked, and receives two gallons more of brandy, and often, when only nine months old, is considered fit to go to England, another gallon of brandy being added on shipping. In all, twenty-four gallons of brandy are added per pipe, whether this mode of treatment is generally adopted or others very similar, and whether shipped off at nine or twelve months' age. When sent thus immature, in which state full two-thirds of the port wines are sent, they are sweetened and softened. Of the remainder which comes to England, the fermentation is suffered to be more perfect, though in that the grapes are for some indiscriminately mixed, and in some few cases carefully selected. Very little of this is without a mixture of geropiga, afterwards added, besides brandy. This

adulterate consists of fifty-six pounds of dried elderberries, sixty pounds of coarse brown sugar and treacle, seventy-eight gallons of unfermented grape-juice—generally of the black, deep-coloured Souzão grape—and thirty-nine gallons of the strongest brandy. There is even reason to believe that logwood is sometimes used, for there are continual shipments of it to Oporto, as the "price current" shows.

Elderberries are said to have been purchased by one of the proprietors of vineyards, in 1842, to the extent of 400*l*. The abolition of the old company has been met by a new one. Its monopoly and abuses have been seconded by individuals, eager to meet the demand of the factory merchants, or those who wanted the strength, colour, and sweetness which nature never gives. The stoppage of the fermentation, in a delicate part of the process, is to be remedied by brandy. Hence it is easy to tell how modern port produces such effects on the stomach as were not felt in the old time, with honest, good wine. The wines are no longer light and cheering, but heavy and dull in their effects. It would almost seem as if the Portuguese made their wine a vehicle for disposing of their brandy. The export of the adulterating matter of geropiga to England is carried on openly. In 1843 no less than 121¾ pipes of this adulterated must of brandy and elderberry were exported to London from Oporto, to mingle with port, or simulate port elsewhere, in wines that perhaps never saw Portugal.

Of the wine of the first quality, described as having every "requisite, and to spare"—such is the phrase—six thousand pipes are about the number produced in the "careful" district of the Douro. Of wine made up, or compounded by being mixed with other wine, about six thousand more pipes are made. There are about fifteen or eighteen thousand pipes of the "second quality" made; that is, in the phraseology, wine that has "requisite qualities, but none to spare." The third quality is not legally exportable; but laws are cobwebs in commerce. Wines of second quality are promoted to the first rank, and the third quality wines promoted to the second. Tasters are appointed, who will sometimes approve half a tonel of wine as of the first class, and the other half of the same as of the second. Standing as second quality, it cannot be exported to England; but the dealer sells his half-tonel of

first-rated wine, and, with the license covering it, he brings his second half into Oporto as first, and so passes that into the market. These licenses are called "papers," and cost a sum varying in amount according to circumstances.

In wines so deteriorated, the difference which should exist between the first and second growths cannot be discovered; and it is clear, from the complexion of the thing, that as little as possible of such a distinction is desired. The company is far better pleased that there should be one favourite class, absorbing the middling as well as the best, since by this means all the wines approach a fixed price. It may be replied, how can such a supposition be reasonable, when port wine is found to differ so much in quality? To answer this, it may be observed, that age, brandy, and the soil, will make a difference in the strength and taste of a wine, but they cannot alter the character of the class; it may be ordinary wine notwithstanding. The wine of the company's exportation cannot be mistaken.

Never was there more sophistry displayed than in the laboured answer made by the company at Oporto to the charges brought against them; they published utter nonsense in their defence. An eminent wine-merchant of London observed, "that it seemed as if the Oporto people were fools enough to imagine no one knew anything about wine but themselves, and that there were no other growths than those of Oporto in the world."

Why Englishmen should not have the benefit of the best wines of the Cima do Douro in a pure state, without adventitious mixtures, and as cheap as other nations, no rational answer can be given. The late alteration of the duty upon French wines was a wise and considerate step, and will lead the way to so just an estimate of the merits of wine that the company of Oporto will some day see the existing system of operations perish. Old habits will decline, perhaps, more rapidly than they arose.

The powers given to the company formerly were of the most despotic character. As all competition was swept away, and they were the sole dictators, so they found the usual evils of arbitrary power recoil upon themselves. They set bounds to the vine country—"so far shalt thou grow and no farther" was the mandate to the possessor of the soil. The conse-

quence was, extensive smuggling. Smuggling, as it naturally does when prohibition is overdone, demanded injurious and tyrannical power over the agrarian population to repress it, in vain. The next step was to crave military aid of an arbitrary government for the purpose, and military interference was followed, as usual, by waste and ruin to the inhabitants without removing the evils;—those evils which were the pretences for the establishment of the monopoly of the company, and the removal of which they urged as most necessary for the interest of the trade, but which they renewed immediately, and systematised for their own advantage. Having monopolised the wine and brandy trade, and even the taxation upon them and the brandy imported into Portugal, they purchased inferior wines to dispose of as port, or mingle with the stronger kinds, to all which they affixed the price, and for ever barred the rating into classes which could only be effected by greater remuneration from the merchant to the grower, and in consequence by a larger rate of payment for the first wines from the consumer. They levelled the superior growths known before that pernicious interference, and amalgamated the white wine manufacture into the common hotch-potch which composes the unique species for which England now pays such a heavy export duty.

This mischief was accomplished long before a sort of modification of the company's charter took place in 1823, in consequence of the injury to agriculture and commerce arising out of the existence of this sordid body, even in the view of so short-sighted a government as that of Portugal. (See Appendix, No. XII.) Their power had been too long absolute. Approached for such a time only by memorial or petition, they were considered within their agrarian and mercantile domains as very lofty and potent dignitaries. Though their wings were apparently clipped by the government, the influence of long-exercised power could not rapidly suffer a diminution; years have elapsed since the decree was issued, but the wine has not changed for the better but the worse. Trade must be free as air. The folly of the interference of the government of a country with its manufactures, either directly or through the grant of a monopoly, does not now need any effort of the pen to expose. The wines of Portugal, left at first to the emulation and spirit of individuals, would have

risen in estimation. They would have been divided into classes, each grower being emulative to attain the highest. High prices would have purchased wine of proportionate worth, and England would not have had to pay dearly for an inferior article. The coarser vines of Portugal would have been succeeded by those of a better and choicer character. The grower would have been enriched, and the British public, that was forced to purchase under a most specious and impolitic treaty, would have had less love for ardent-spirited wine, decidedly injurious to health. It was doubtful whether such desirable consequences could follow after long abuses. The individuals concerned acting separately, it would be difficult to free from their attachment to former usages, and their desire to administer to a corrupted taste created previously by themselves, to oblige the spirit-drinkers in the home market, who ask for sweet, strong, and deep-coloured wine. They had assumed also the direction in the details of the vintage, which their want of experience caused to be injurious, imagining in pride of capital and trade that they conferred an ability for every undertaking. In defence of brandying the wines, the company's agents say that the English cannot have them too strong. How comes it, then, that before the old company engrossed the wine trade of Oporto, very little brandy was ever used, and Englishmen did not complain? The fact is, the company created the bad taste, which afterwards became a standard, as full of convenience for promoting their objects as it could well be. Next, they say the wines will not keep so well without brandy: this excuse is alleged for the little spirit which is mixed with the Bourdeaux wines before they are shipped to England; the reply which will do in the latter case will do in the former—how comes it that Bourdeaux wines are drunk in Holland, Prussia, and St. Petersburgh, in their natural state, and yet will not reach England pure. The truth is, that the Oporto company knew what is so well known in France as to be a matter of complaint, namely, that a large quantity of secondary wine pays better than a little wine of the highest quality.

In 1841, a bad vintage year, out of 77,894 pipes, they passed 58,033 as of the best or most desirable quality. The reverse is the rule in every other vine country under the sun. In 1842, a very indifferent year, out of 73,231½ pipes they

contrived to have 47,351 of what they call their first class—in other words, that of which they could make the most in quantity. The object since has been to bring down the fine growths, and raise up the poorer, and thus keep a medley of a very middling quality. Brandy was the best means of equalising the two extremes. The wine could not be drunk until the vinous qualities were nearly all gone, and the brandy tamed down, and then the cheat passed off; freshness and bouquet ceased to belong to the wine. In this way only is it to be accounted for, as may be seen in the Appendix, that three bad years together did not change the prices or quantities of these wines; nay, that the same season one part of the wine was said to be good and another bad, as if in a fine season the entire vintage would not be either good or bad. Accustomed as we now are to these wines, the improvement of them is to be greatly desired. The merchants from England, it is said in their defence by those in Portugal, were always demanding colour, fruitiness, ripeness, softness, and so on. The farmers did all they could to meet the demand on their part. They applied artificial means to sweeten, strengthen, and colour the wines, and he who succeeded best sold his wine first, and at the highest price. In fact, he "made," but did not "grow," the wine most in demand. The objects required should have been effected by attending to the nature of the grape, by adapting cultivation to the end, and by a judicious intermixture of the fruit, not by the system of Apothecaries' Hall.

Year by year the drinking of port wine has fallen off. People exclaim, "I cannot drink port as I used to do!" Some put it upon their own advance in life, others upon dispepsia, but more are puzzled to know how it disagrees with them, having neither age nor dispepsia to lay it upon. Port is seldom seen now on good tables, except with cheese. The truth is, that the wine has fallen off in goodness within the last thirty years more rapidly than could be dreamed of, owing to still grosser interferences with its management than existed before. If the customer does not know what wine is, the wine must be made to meet the customer's notions, however out of the way of what the wine should be. He wants it sweet, high-coloured, and strong, and there are ingredients ready to give the wine that or any other character

required, except what is pure and healthy. "Ah," says the old "célibataire," "there is no port wine now like that of the old time: I wonder how it is!" Small quantities, comparatively, of the purely fermented must of the Oporto grape are now met with. Hence a good glass of port gets rarer and rarer, and the sweet, strong, dark "fruity" wine of art takes its place, often smelling like medicine, and soon changing to a bad colour by keeping. Pure wines are actually left on the hands of the farmer in Portugal, unless he makes a wine to suit the customer's desire. Nay, English dealers are openly charged by the Portuguese with going to Portugal and making wine "after their own fashion," and prevailing on some farmers, in the hope of gain, to do the same; the merchants themselves taking their cue from petty innkeepers and strong-stomached rustics, the customers for such wine in England. Yet it is a fact, that the taste for cool, pure, exhilarating wine has been continually gaining ground among the refined and wealthier classes in this country.

It is now fitting that something should be said of the districts and vineyards, the farmers and proprietors of which have been thus weighed down, and whose wines have been so sunk below their real merits by the pressure of the foregoing monopoly; secondly, as regarding prices.

The wine country of the Douro extends along the banks of that river about fourteen leagues from the city of Oporto. The vine is very generally cultivated in Portugal; but it is from the vineyards of the Douro alone that its wines have derived a celebrity in England, through the injudicious financial measure to which allusion has been already made. The best wine of this district was capable of great improvement had competition been suffered to exist, and the market remained open. The wines of Portugal are now inferior to the wines of Spain, the sherries of which country have continued to improve, and to approach much nearer to the first class of wines than formerly. This arose not from any fault in the soil or climate of Portugal, which is admirably adapted for the growth of the vine, but from the sordid monopoly already dwelt upon.

The wine country of the Douro is called the district of the Cima do Douro, or the Higher Douro, and that is again subdivided with respect to product, into—first, Factory wines,

Feitorie; and, secondly, Branch wines, *Ramo.* The sites which it affords are excellent, and the powerful sun of the south renders the failure of the crops a matter of rarity. The vine training is of the low kind, the *tige bas* of the French, and the vineyards are on the slopes of schistous hills, of most favourable aspect. No less than sixty-seven varieties of vine have been reckoned in Portugal; but in the wines no nicety of choice has been exemplified; the favourite species is the product not of the best vine, but of that which gives out the greatest abundance of a black fruit: the leaves are exceedingly coarse, rough, and deeply serrated. The species called Donzelinho, Alvarelhão, a small black grape, giving a light-coloured, durable wine, and the Souzão, black, astringent, giving a deep coloured wine, but harsh, are in much request; the Bastardo is black and small, grown in a deep slaty soil. It is one of the best species.

The Tinta Lameira yields excellent wine, and there are several other kinds in use, as the Touriga and Tinta Cãa, but whatever are the varieties, or the different qualities of their must from inferior or superior situations as to growth, they are all mingled together, and the wine is sweet or harsh as by accident one particular species of grape may predominate, while the choice must which the best grape might afford has its good qualities utterly wasted, and flavours confounded. It is evident, therefore, that no justice has been done to the wines of the Douro, nor have their "capabilities" been fairly put to the proof. The wines of the Upper Douro are generally dry, and ought to be kept three years in the country.

The grapes are trodden in vats in a slovenly way with the stalks, and while the process of fermentation proceeds, this uncouth operation is repeated. The time of fermentation varies, but it rarely exceeds seventy-five hours. The wines are then removed into tuns, containing upwards of a dozen pipes each. The wine is racked after the great wine sale in February, and carried to the cellars of the company, or of the purchasers. The taint of the brandy which it holds until age ameliorates it at the expense of its natural vinous flavour and perfume is now all-prevalent. Thus, in order to drink the wine of Oporto, it must be swallowed in a fiery state from brandy; or if the consumer wishes to avoid the ardent nature of the combination, and cause less injury to his stomach, he

must wait until the better vinous properties are deteriorated, and the flavour and aroma of the wine are utterly destroyed. He is fortunate who is able to meet with the little of the pure port of the old time that there is in the market.

No valid excuse has ever been made for the practice of adding such a quantity of brandy to the wines of Oporto, in the extraordinary manner which has been the custom. The quality of some of the Portuguese brandy has been often bad. It has sometimes been distilled from figs and raisins, of which no other use could be made. A couple of bottles of good brandy to a pipe when put on board ship, would answer every purpose of preservation. In some years twenty thousand tuns of port wine have been imported into Great Britain, in every one of which, supposing the portion of brandy, in place of four gallons and a half as formerly added, to be twenty-four gallons to the pipe, artificially introduced, it would give the enormous amount of 960,000 gallons of brandy thus disposed of. This must be an object of some moment to the export trade of Portugal. No one in England ever dreamed of a brandy trade of Portugal being carried on in this manner, and so largely, too! To get rid of this pernicious liquid fire, none of which is really required, Portuguese wines having both durability and flavour adequate to any purpose, the wine must be kept a dozen years, and utterly ruined in freshness and bouquet. Can it be wondered at, that people complain of the effect of modern port upon their stomachs, and declare it is not what it was formerly?

In 1775, Sir Edward Barry, in his treatise upon wine, remarked that those of Portugal were at that time become more heavy and heating than formerly, and took a much longer time to mature. The practices at present carried to such an extent were then beginning. What would the good physician say of nine-tenths of modern port wine, its brandy, and geropiga? The stock of this last adulterating mixture in hand in Oporto, in 1849, was, 2144 pipes!

If the Oporto charge made against the English taste were true, how came it that even down to 1754 the admixture of the small quantity used till then was censured as flagitious and abominable? Port wine had been drunk in England for nearly sixty years, and the wines were found warm enough for the taste of Englishmen. The truth is, as already stated,

that brandy and mixing aid in making all growths equal, after being kept a longer or shorter time, for the inclination of the inferior qualities always is to descend in the market even below their worth, as that of the better is to increase. Wines of a worthless or very inferior quality have been imported to the extent of several thousand pipes in one year into Oporto, to mingle with the port wines, such as those of Anadia or Figueras, when the quantities have been short. Thus there was always plenty to export. Bad or good years were run together. (See Appendix, No. XII., table of quality for twenty-one vintages.) By such means, too, the wines of Oporto sent to Guernsey and Jersey, not in amount equal by two-thirds to the port sent into England from these islands as genuine wine of Portugal, are carried up to the required mark. This is a singular instance of the gullibility of the English people, who consumed annually hundreds of pipes of wine as Portuguese, that never had been in Portugal at all. Spain with Beni Carlos, and France through Cette, make up the extra supply. By these practices, and the ease with which the mass of any people is cajoled, a taste in wine of a most extraordinary kind had come to prevail in this country, among the bulk of those in the middling classes who drink wine, and who seemed to prefer the juice of the grape the more it was unlike the product of simple fermentation, the very excellence of which consists in the slight interference of artificial effort for completing its product, after the earth and sun have done their part.

Between 1750 and 1755 a pipe of the best Oporto wine could be bought in the country of the grower for two pounds sixteen shillings, so low had these wines fallen, and yet upwards of ten thousand tuns were brought into Great Britain, and in 1753, nearly thirteen thousand. But in 1756 the old company was formed, and the wine never fell so low again, although the consumption was very little increased. Yet in 1819, 1820, 1821, and 1822, the quantity imported did not more than average the foregoing amount. The average import from 1813 to 1822 was but 12,182 tuns. From 1787 to 1810 seems to have been the high and gaining state of the Oporto trade; the company's triumph. Once in that time the importation into Great Britain reached 28,669 tuns, namely, in 1801. Twice, in 1803 and 1810, it was above

27,000. The average from 1715 to 1787 seems to have been about 12,000 tuns: a remarkable circumstance, arising no doubt out of the advance of duties, since the increase of the population of Great Britain from 1715 to 1826 must have otherwise greatly enhanced the demand. In 1831 only 11,639 tuns were imported. In the luxury of wine, therefore, the inhabitants of England, from 1715 to 1787, were better provided than they are now, as a far greater number in proportion were able to afford wine. The excess of these wines, imported between 1787 and 1810, must be placed to the account of a stimulus given by the war, and the consumption in the navy and army. The largest vintage in the Douro was in 1804, when the best part of 77,000 pipes was made or manufactured. In 1798 above 64,000 pipes were exported. It is evident, therefore, that Portugal must have suffered in her export wine trade since 1810, as far as Great Britain is concerned. No longer ago than 1837, of 25,782 pipes exported from Oporto, 21,110 came to England, all the rest of the world taking but 4672, and the larger part of this last number going to the Brazils. (For ten years' export from Oporto, see Appendix.)

The best wine exported suiting the English taste is produced at and above Pezo da Regoa, which is situated in the centre of the Upper Douro. In that place the annual port wine fair is held. When the wine grown here is preserved pure, it resembles some of the Rhone growths in France, or the Côte Rôtie. The Ramo wines have little brandy mingled with them by the farmer, being reckoned inferior to the Cima do Douro; still the company found a dishonest use for them in mingling, or filling up their casks, and completing ullage. Villarinho des Freires, Abasas, Galafura, and Gorvaens, are among the best vineyards of the Ramo, and their wine is light and wholesome when left in the natural state.

In the province of Beira the vines are of the high growth, *tige haut*, and there they also mingle brandy with the wines. Lamego, Alenquer, and Monçaon produce the best; they are of good quality. The white port of this country was at one time much in request, and thought better than the red. It was subsequently forbidden to be made by the monopolists of the red wines. *Vins de liqueur* are made at Carcavellos, both red and white. Common Carcavellos, a wine of a

sweetish species, growing gradually drier by age, is a well-known wine in England; so is Bucellas, a good wine, which comes from a vineyard near Lisbon, but is too apt to be spoiled, by being sophisticated with brandy when sent to this country. Setuval produces a dry and a muscadine wine of good quality; and Colares a good light port, when obtained pure. Of Lisbon there are two kinds, a dry and sweet wine, both much more neglected than they should be. Formerly dry Lisbon was a noted table wine, but was said not to be good for nervous persons; very probably an unmerited scandal. In fact, it is easy to perceive, on examining the wines of Portugal, how much monopoly, abuses, and the want of competition, as well as of science in treating their wines, have kept back the vinous productions of a territory blessed with every natural advantage. Some of the wines of Portugal were known in England in 1600. Charneco is a wine mentioned by Shakspeare in Henry VI. It came from a village of that name, not far from Lisbon, to the northward.

The monopoly of the company, it may be further remarked, though it did not increase the excellence of the wines of Portugal, enhanced their price. This is the natural effect of all monopoly, as well as lessening consumption. It may be inferred, as will be seen from the tables at the end of this volume, that the demand from England has scarcely increased at all, in consequence of the high duties levied on wine here at a later period. From 1715 to 1787, the importation was about 24,000 pipes, and that is little less than the average since 1813. After the company was formed, though there is no proof that the wines were at all improved, they speedily rose to twelve pounds a pipe, and then to eighteen in the country. In 1818, when the quality was ordinary, and the quantity as great as it ever was, the price demanded was forty-eight and fifty pounds at Oporto. Money had not altered in value. The same quantity of wine was made and exported within both periods, and England was almost the sole consumer. It would be a very reasonable thing to inquire how this happened. Although wine from Oporto fell afterwards, it was only to a price a little lower. From thirty-five to forty-five pounds sterling was a large price for wines neither *recherché*, nor diminished by lack of product,

neither improved by superior skill and capital, nor made with greater cost to any serious extent than they were fifty years before. The brandy expended, it is true, became a source of cost that did not before exist, but still this is a point never satisfactorily explained. Perhaps there was a predilection for dear wine among buyers, which monopolists encouraged. Whatever the cause, the public was equally the sufferer.

In 1710, or about that year, the wines of Portugal brought into England were more varied than at present. White port, as well as red, was sold in the city at five shillings per gallon. Red and white Lisbon at five shillings and sixpence. The red wine monopoly most probably put a term to the import into England of more than one species from Oporto. Subsequently the price of port in London, duty included, was, in 1733, red port from thirty-two to thirty-six pounds per tun of two pipes; white port from twenty-four to forty pounds. Red Lisbon from thirty to thirty-six; white Lisbon twenty-six.

Events in Portugal, since the first edition of this book, had led to the hope of improvement in wine-growing and manufacturing there for exportation. Let the wines of the Douro have fair play; let care and delicacy be observed in the vintages; let the wines be classed; and there will be no fear of a noble and generous product. British capital, and a practised hand or two from the Côte d'Or to direct, and we might have wine of Oporto of the first class. It is not the soil, nor the climate, but the slovenly management of the vintages, the gripe of monopoly, and the lust of cupidity, that has prevented the wine of Oporto from doing justice to itself. A taste of what accident has yielded more than design, has shown what may be produced in Portugal, by a pipe now and then—a sort of "angel visitor"—to this country. Some excellent wine got over here in the late confusion of political events astonished many an old wine-drinker. In buying port, as in buying all other wines, the rule is never to be impugned that good wine can be purchased of the most respectable merchants only at the most respectable prices.

After the foregoing paragraph was written in a former edition, a politic decree (see Appendix) was issued on the

downfal of Don Miguel, which abrogated that nuisance the old wine company of Porto, and restored the free disposal of their vineyards and wines to the cultivators of the Upper and Lower Douro; therefore, we expected different classes of Oporto wine, as our wine merchants might go unshackled to market, and import as much brandied wine as they chose for those whose taste it suited, and as much of a high delicate flavour and of an unadulterated quality as good judges can get. Unfortunately, nature must still be forced. Are sweet wines wanted, they are made sweet artificially, or strong in the same way. In 1849, the vintage was reported bad, and the wines bad in quality. To meet this evil, the price of brandy was advanced at once, from the quantity demanded or expected to be in demand, to carry them up to the mark of the gainful intermediate class, between the small quantity of good and the mass of common or very bad, by the resuscitated or "new" company. (See Appendix, "Letters in the *Periodica des pobres*.")

But there is one evil of the old system yet unnoticed; and that is the introduction into England of wines foreign to Portugal as port. No wine is so easily imitated. Wines under that name have reached England from Bourdeaux. If the case be proved, then no one will contend that there would be any difference in the flavour of the wine if it were called by the right name, and importers returned to the path of integrity. Let any one take a good-sized map of France, and, finding Marseilles, trace the Gulf of Lyons to Cette, and from Cette a hundred miles further west or south-west. There he will see the small harbour of Port Vendres, situated near Cape Creux, at the base of the Pyrences. Doubling Cape Creux, he will discover, five or six hours' sail distant, the little bay of Rosas, in Spain. Now, wines for England were always designated "French" by law, if they came from France, in order to secure the high rate of duty attached to them. The same wines coming from Spain, as Spanish, were only liable to a duty, from 1786 to 1793, of 32*l.* 16s. 6d., while French wines paid 49*l.* 14s. $4\frac{16}{20}$d. per tun. (See Appendix, No. II.) A house at Bristol, for years before and up to the time of the French revolutionary war, drove a thriving trade by getting the wines of Roussillon from Port Vendres into Rosas, and then shipping them to

England. The warehouses used for this purpose are yet in existence at Port Vendres. These wines, as good or better than those of Portugal during the monopoly, were purchased much cheaper; and a very large profit must have accrued upon their sale. The house of Ireland, of Bristol, was among the parties that carried on this commerce. "Bristol ports" had a great run, and were favourite Oporto wines, without ever being in the country! Under the absurd monopoly, the trade was perfectly fair, although the passing off such wines to the public in England as port wines was not just. The war ended this traffic. Something very similar is now carried on through Cette. In Bowring's parliamentary report on Wines it is stated, that factitious Port and Madeira are prepared and brandied for exportation through Cette. Now, good wines of the south of France need no disguise; they have every quality of pure, sound wine.

A vessel chartered for "*London* or Brazil," left Cette for Oporto, with some hundred pipes of wine, in November, 1833, for a house the name of which was well known. This was her third voyage in the same trade within no long space of time. The trade of Oporto to the Brazils has been ruined. There were sent from Oporto to Brazil, of port wine, in

1827	7410	pipes
1828	9585	„
1829	6212	„
1830	3568	„
1831	824	„
1832	434	„
1833	131	„

In 1831, France shipped to Brazil 4500 pipes, and increased her shipments every year since. In that year, her total exports were 152,000 pipes.

The exports from Oporto to the Channel Islands touch another of these positions. There were shipped from Oporto for the Channel Islands, in

1826	pipes 38	Imported into London	293	pipes
1827	„ 93	„	99	„
1828	„ 73	„	75	„
1829	„ 0	„	90	„
1830	„ 0	„	147	„
1831	„ 0	„	143	„
1832	„ 0	„	263	„
1833	„ 0	„	862!	„

Now why was all this, if the object were not to introduce

a commodity purchased eheaper, in place of a dearer, and when the customs entry demanded wines grown in France to be entered as French, to take them to another port, and tranship them there as wines of Portugal? When the difference of duties existed, the revenue loss was great. In 1812, about 135 pipes and 20 hogsheads were exported from Oporto into the Channel Islands, but 2545 pipes and 162 hogsheads were imported from these islands into London, the duty being then 11s. 5d. French and 7s. 7d. Portuguese, per gallon, the difference exceeding the cost price of such wines. Guernsey and Jersey did not grow the wines. Thus if legislators follow a tortuous poliey, or keep up unwise restrietions upon trade, its spirit is certain to baffle them, even with an army of excisemen.

Constant importations of wine from Hamburgh and from Amsterdam into London took place, no less in some years than five hundred pipes. It is true there was wine sent direetly from Oporto to both these places, but it is not less true that Franee exported to both plaees annually above a hundred times the quantity whieh Oporto did. Freneh wines were brought into London from Holland as port. No less than 24,000 pipes of French wine entered Hamburgh in 1831, and 10,000 were reeeived into Holland. London brokers offered French wines for sale in London, by way of Oporto, as port wines.

By the deeree of Don Pedro of the 3rd of April, 1833, a duty of twenty per eent. *ad valorem* allowed the import of all foreign wines. There was nothing to prevent vessels from any port whatever touching at Oporto, which, since Mareh 22, 1834 (see Appendix, No. XII.), has been declared a free port. Between the 3rd of April, 1833, and the 6th of March, 1834, the return of imports ineluded 586 pipes, 72 hhds. 96 qr. casks, 339 barrels, and 2636 garrafas of such wine. Cette port wines of French assortment eould be transhipped at Oporto for England, as well as the native growths, and certainly might be sold even eoming through Oporto at a much less price. Cautions were issued by merchants against "spurious ports." All these things prove the necessity of a great alteration in the commerce in wines, the prineiple of which will be that every wine shall bear its true designation. To this the good sense of the public must

aid, by not declining wines for their name, but their demerits' sake. If the enduring, full-bodied wines of Roussillon were drunk as port in 1790, and thought excellent under the name of port—if port wine came to England from the Channel Islands that had never been in Portugal at all—why should not such wine have been drunk equally well without a false designation, or a hue of fraud being attached to it, when the prices were no higher than those of port ought to be?

In the first edition it was stated that France was able to manufacture, "within her own limits, every description of wine." This was not said lightly: the English know nothing of two-thirds of the wines of France. From Moselle to Malmsey, from the meagre *ordinaire* of the north to the rich muscadines of Rivesaltes and the vinose, full-bodied, deep-coloured, lasting red wines of the south, some are found as much superior to Port wine, and as much resembling it, as pure wine can well do. Was it to be supposed that those wines were only to reach this country through Oporto, and that their real denominations would be for ever concealed? Cheaper, purer in respect to vintage, and deeper-coloured, there are wines of France that may become most formidable rivals to the Portuguese. The secret was blazoned in the Masdeu, which is a Roussillon wine, and wanted only age to perfect qualities equal to any port wine, while in vinous merit it was superior, when not dosed like port with brandy. The reader who will examine the climate of France, and consult this volume on her immense wine produce, and her skill in the growth of wines, will perceive that the author has in no case exaggerated her variety or capability, or amount of production.

In 1668 we imported 30,000 pipes of these and other French wines. A tax equal to nearly double that on Portuguese wines was laid on, and in 1697 only four pipes were imported. Common sense will by-and-by operate upon the people of England in this regard. The strong, full-bodied wines, of good vinous principles, even the delicate growths of the Gironde also, will again extend in consumption, and reduce that of the coarser wines of Portugal, as soon as our habits can be operated upon in a beneficial manner, if wine consumption increase again, and that of spirits, in place of

increasing as it does at present, should fall off. Their superior cheapness forced the Portugal brandied wines upon us, and the same sort of reaction will take place against these wines in the end; in fact, it is doing so already in the case of the healthy growths of Spain.

In the editions of this work, published in 1833 and 1837, it may be seen that no less than twelve thousand hectolitres of Roussillon wine went into Spain, or had gone there annually since the peace of 1815, corroborating in some measure a trade like that of 1790. This quantity most probably found its way into England from Spain as port wine, paying port duty until the duties were equalised.

It is natural that when the quantity of Oporto wine was tripled or quadrupled in price, while the quantity grown or sold was not increased, an advantage should be taken by speculators to substitute wines equal in quality, and purchased at one-third of the price of port. From France this was easy when hostilities did not exist. When they did, Spain supplied wines that mingled with port, in the proportion of two-thirds, so that the system could be still pursued. As if it were not enough that prices should be raised at Oporto as respected England, and not other countries, the government of Great Britain has allowed that of Portugal to levy a tax for the Portuguese exchequer of 4*l.* a pipe, in the shape of export duty, over and above other dues, reaching altogether to 6*l.* This duty had not been paid by other countries; so that it has been said port wine could be taken to America from Portugal, and brought from thence to England, and be cheaper than if brought direct from Portugal. This mode of traffic actually began, and the Portuguese government, in 1850, endeavoured to put a stop to it by a decree; with what success the author is ignorant, but 1400 pipes are said to have been actually passed to England in that mode. Verily the public here were taxed enough on the cost of the article, and in home duties, without paying as well for the trappings of the court of Lisbon. The new Oporto company, never remarkable for consistency, nor commonly politic in its views, denounced the English trade for violating the Portuguese law, by shipping wine *viâ* America, as if the British shipper had no right to evade an unjust law, while the company is a party to the issue of bad wines. Between 1843 and 1849 it approved

as first-rate wines for export 158,111 pipes, but afterwards reduced their own approval to 83,000 pipes. The difference, or 75,111 pipes, being without export permits, fell to the rate of second-class wines, although they were of the same quality as the first! The difference was not in the wine, but the permit. This shows how little quality is regarded by the company, which, in the teeth of this fact, pretended that these last wines, shipped some of them to England *viâ* America, were of inferior quality, which they had passed as first-rate —so little does the company regard the inferior wines coming to England. Such port has been sold, to the extent of thousands of pipes, from 14*l.* to 18*l.* per pipe; and, in 1848, wines barely saleable, at 8*l.* and 9*l.*, were all shipped direct with company permits. The company is a mere subterfuge as to the protection of the market in England against inferior wine.

In 1753, or about that time, as already stated, a pipe of port wine cost 2*l.* 16s. There were 26,000 pipes imported into England. The Methuen treaty had then lasted fifty years, and the wine was slightly brandied to what it has been since, as there is tolerable good reason for believing.

In 1756 the price rose to 12*l.* and 14*l.*, no larger quantity being imported than before.

In 1798 and 1799 no less than 48,000 pipes were imported, and the prices varied from 14*l.* to 18*l.* a pipe.

From 1830 to 1835 the average importation was only 26,100 pipes, or just what it was in 1753, and a little more than half what it was in 1799; and yet the price was from 32*l.* to above 40*l.* per pipe shipped! Now the dullest individual that ever walked the surface of the earth without a leader must perceive that this is the effect of monopoly, speculating upon a forced national predilection. The Portuguese emancipated colonies take little or none of her wines, as they once did, for France supplies Brazil; but some years' stock of port being always hoarded, there is no decline of prices.

Of the enormous overcharge on wine effected by the company and the monopoly, out of all ratio with the value of the article to the consumer, the following will afford some idea:

A pipe of Oporto shipped, 32*l.* to 40*l.*

English duty, 5s. 6d. per imperial gallon in addition.

Now here is the cost to the home merchant of an article not worth more than 12*l.* sterling. Deducting that sum from 40*l.*, we have the enormous expense to the public of 28*l.* over and above the necessary sum to be added by the merchant at home for freight, dock charges, interest of money, bottling, and profit. Port drinkers, who were using the cheapest article they could procure, were paying "dear for their whistle." It may be said that the grower raised the price of the wine, from the natural increase of rent upon him. This may be true to a certain extent; but it must be recollected that it was the capital of the monopolist that enabled the landowner to raise his rent. In proof of this, let us see how a pipe of a so-called "Port" wine, from a finer and richer country, will tell; or suppose it be a pipe of Roussillon. The price is 12*l.* only; the duty the same as port: just 28*l.* of difference shipped.

Now it is easy to discover from this the species of agent which will finally bring down the Oporto monopoly, and at the same time enable the reader to guess the profit on Guernsey, Hamburgh, or Amsterdam ports, when, on one pipe, 28*l.* difference accrues in the cost prices. Port wine ranged from two shillings to two-and-sixpence the bottle anterior to 1756. At 12*l.* a pipe it could be sold at this price still. The country of its growth is glutted with wine; its exports are diminishing, and other wines are substituting for them abroad, and yet the prices of tolerably good port wine are as high as ever.

To repeat a little in substance. When Oporto wines were only from seven to eight pounds a pipe, or in 1727-8-9-30-31, the imports into Great Britain were 13,385 tuns of two pipes each. In the five years ending with 1822 they were 252 tuns, or 504 pipes less. During the French war, when the wines of that country were not attainable in England, was "the high and palmy" state of the Portugal trade. In two years, the Oporto exports between 1801 and 1815 reached 55,000 pipes. Since that year they have gradually diminished as the general exports of France and other wine countries have increased. It was natural to suppose, therefore, that the wines would decline in price, and they would have done so had the trade always been open and fair.

The author finds pleasure in discovering himself indirectly

corroborated in opinion respecting the existing spirit of the Portuguese monopoly, and its consequences, by respectable houses in the city of London, dated in 1833. One of these states that

"The prices of the British factory of Oporto, as well as of the Royal Wine Company, in the years 1797, 1798, and 1799, were from 14*l.* to 18*l.* per pipe, on board, at the usual credit of nine months, &c.

"The shipping prices charged at Oporto, in 1830, 1831, and 1832, were from 32*l.* to 40*l.* per pipe for the same classes of wines; and the export from Oporto, at the first of the two periods named, was considerably the greatest. Whatever causes operated to create the advance from 1799 to 1832, there seems to be none for the continuance thereof."

The House proceeded to state, that allowing Don Pedro's war to have wasted from 15,000 to 20,000 pipes, at least seven years' consumption for the United Kingdom remained in Portugal and England. The opinion was held that the shipping prices must decline. This was a rational expectation; but the capital, habit, and management of best part of a hundred years was not to be quickly altered. Individuals, when suddenly made free, often act according to previous usage against reason. The accumulation of wines must be supported to the last possible means by the capitalist, till distress force on the measure; he will die inch by inch. If he baffle conjecture in his resistance for a time, the fall will ultimately come, while other wines drive those of Portugal out of the market, in so great a degree as to quicken that inevitable event.

To place in a clear point of view the monstrous legislative blunder, which abstracted enormous sums from the pockets of the public for the last thirty-five years alone, it may be proper to examine what England would have paid for her port wines, had not the monopoly existed. There is no reason to believe that, as the wine of Oporto, before 1756, realised from four to seven pounds a pipe, the consumption not materially increasing, it could ever have got above twelve pounds; ten pounds, it is probable, would have been the maximum. Now our imports of port wine from 1801 to 1835 inclusive, did not much exceed those from 1765 to 1800, when the wines realised between fourteen and eighteen

pounds. The average may be taken at about 30,000 pipes, which at twelve pounds per pipe, would be 12,720,000*l.*, the utmost that would have been paid in the last thirty-five years. Instead of that sum, the public have actually paid 38,160,000*l.* sterling, reckoning the average prices at 36*l.* per pipe. It must be acknowledged, that 25,440,000*l.* was a tolerable sum to throw away—it was a noble bounty on the exportation of a little coarse woollen cloth! Now, the wisdom of our rulers has equalised the duties, yet the wines retain high prices. Such is the effect of our national disposition to take things for granted: thus are we duped, because we fear to exercise our reason in the teeth of ordinary custom.

The foregoing statement naturally leads to the inquiry, whether wines that have been drunk in this country as good port, will not be consumed under their own names very soon, at half the price of Oporto wine. There can be little doubt but they will. The alteration and equalization of the wine duties is effecting important changes in the trade. If we drank the wines of Roussillon or the Herault as port, *viâ* Oporto or the Channel Islands, we might as well drink them rightly designated, at a third of the price we paid for their Oporto titles. The merchants must extend the varieties of their shipments, and suit every taste and every degree of cost which a public emancipated from the influence of a long-standing monopoly will not fail to desire. The capital at Oporto has kept up prices; but it cannot arrest a course of events which is irresistible. With cheaper and more vinous growths from France, or any other country, the habits of Englishmen will change too; it will be singular, indeed, if they do not. In fact, the Oporto wine trade must still decline. The evils of domestic war were quickly recoverable; those of the monopoly cannot soon be eradicated, too much capital sustaining them.

It may be said that sherry wine, about 1799, was only from fifteen to twenty-nine pounds the butt, and it is now from thirty to fifty-eight. This is very true; but not deciding whether there has been a demand raised artificially or not, it suffices that sherry becomes the fashion. Not only so, the importation of Spanish wines, free from any monopoly, increased from 1,401,960 imperial gallons in 1799 to 2,246,085 in 1834. Now, the port wine imported in 1799

was 48,600 pipes, and in 1834 only 23,138; and yet the price at the latter period doubled upon the former. Sherry has risen with a rapid demand; port has risen, with a rapid decline of its consumption. One is a natural, the other an unnatural course of things. The truth is, the consumer's pocket was getting restless; it had been struggling to unite the convenience of economy under our heavy taxation with a rightful freedom of choice.

From the wines of Portugal, in the mother country, it is natural to turn to those of the colonies. Of these, Madeira and the Azores alone produce wine which is known in foreign countries.

There is much uncertainty respecting the period at which the grape was first introduced into Madeira. It was most probably stocked from the Malvasia grape of Spain or Portugal, originally from Candia; though it is stated by some it was brought thither directly from that island. Precisely the same thing is said of the Malvasia grape having been transplanted to the Canaries direct from thence or Cyprus. It is much more natural to suppose, that as these species were grown in Spain and Portugal at the time, they were transplanted from the mother country. Chaptal is in error when he says that vines were planted in Madeira in 1420. Tristan Vaz and Juan Gonsales only discovered the island the preceding year, and called it Madeira from finding it thickly covered with wood. Prince Henry did not colonize it until 1421. The vine was, no doubt, early introduced there afterwards, and the volcanic soil was singularly favourable to its growth. Sugar canes were first planted there from Sicily, by the before-mentioned prince. The wood was a great deal of it consumed by a conflagration, kindled by the discoverers, which raged, it is said, a long time afterwards, and thus the way was cleared for the vines. It is on record that wines were exported from the island before 1460. The first colonists of North America were no sooner settled there than they carried pipe staves to the island, and exchanged them for wine.

The hills, says a writer in 1689, were then covered with vines, and the valleys with ripe grapes, which yielded a fragrant smell. It is added, that the fertility of the island was abated from what it had been on the first discovery. The

wines were brought to the towns in hogskins, upon asses; hence the wines of this picturesque island had formerly the *borracho* taste. They then cultivated the black pergola grape, and made several kinds of wine. One, like Champagne, was not much valued. A second was stronger, and the colour of white wine. A third called Malmsey, and a fourth Tinto, inferior to Tent in taste, was never drunk by itself, but mingled with other wines, to make them keep. The Madeira wine, it is then remarked, has the peculiar excellence, that it is ameliorated by the sun's heat when pricked, only by taking out the bung and exposing it to the air. When they fermented their wine, the growers are described as bruising and baking a certain stone called *jess*, of which nine or ten pounds were thrown into each pipe. The product of the vintage was divided between the proprietors and the farmer, and the latter was said to remain poor, while the former got rich. The Jesuits at one time contrived to hold a monopoly of the Malmsey, of which there was but one good vineyard in the island. From 20,000 to 30,000 pipes were thought to be the annual produce of the vineyards. The wine was drunk a century and a half ago in America and the West India Islands in considerable quantities. The produce was sixty for one to the first proprietors of the vineyards, from the ashes of the trees "bringing forth more grapes than leaves, and clusters of a span length:" it was called the "Queen of Islands." Indeed, some of the clusters of a dessert grape there now often weigh twenty pounds.

The varieties of grape grown on the island are numerous; the malvasia, pergola, tinta, bastardo, muscatel, vidogna, verdelho, cercial, or esganuacao, bagoual, and others which flourish in volcanic lands. The best soil is a mixture of red and yellow tufa, called *saibro* and *pedro molle*, exceedingly light, but mingled with a clayey earth named *massapes*, and a volcanic cinder, *arraya*. The vines will bear well for sixty years. The hills are steep, and the surface of the soil generally is of a light red colour. The slopes are admirably adapted for growing the vine, but the vineyards do not appear so numerous as the stranger would expect. The implements of husbandry are rude, and the operations of the vine-growers by no means so careful or neat as they ought to be. The Malmsey, of which there are several

qualities, is, when of the best kind, a most delicious wine. One species is reserved for the royal table in Portugal. Of the very best little reaches England. It is remarkably rich and cordial. There is a variety of it called green Malmsey. The best is produced from an "avalanche of tufa," lodged at the bottom of a cliff, almost inaccessible. In some places deep trenches are dug, and ashes placed in the bottom, where there is a fear of the vine reaching a clayey stratum below the volcanic *débris*, which has fallen from a precipice of great height.

If the vineyards are on a dry spot, they are watered thrice in the summer season. Some growers use animal manure, which others reject, and, as the French do, they sow lupines among the vines, and bury them at their feet every second year. The vine is generally propagated by cuttings. The cuttings from the north side of the island are preferred for the south. The vines give no wine until the fourth year, and the average produce of all the vine-land now is not more than a pipe an acre. Some of the merchants contract for the produce of the entire vineyard on the ground. They mingle the fruit of different vineyards together, assorting them in the way best adapted to the market where they are to be consumed. These wines vary much in quality, and a nice judgment is required to select the better kinds on the spot, as the word of the seller can rarely be relied upon.

The vines are planted in lines in the vineyards in front of the houses upon trellis-work seven feet high. The branches are conducted over the tops, so as to lie horizontal to the sun's action. They thus afford a canopy to those who walk under them, yielding a delicious shade in that ardent climate. The stalks of the *arundo sagittata* are used for constructing the frames. On the north side of the island they are trained up chestnut trees to shelter them from the violence of the wind. The soil near the chestnuts does not seem to suit them so well as that which is of a different character. A portion of the vines is trained on frames not more than three feet high. Some fruit is grown as high as two thousand seven hundred feet of elevation, and wine is made at two thousand. They prune their vines in February and March. The flowering takes place about two months after the pruning.

A traveller who was there in 1823, says the wine of the first quality, which is called *pingo*, is that which arises from the treading only, in the vat or trough, by bare-legged peasants. The wine is then pressed, in the same trough, with a lever like a eider-press, to the fourth operation; this is called the *mosto*, or must. The vintage is in September, except for Malmsey. The fruit is sorted. The fermentation takes plaee in the pipes, and gypsum is used during the process, unless the vintage is green. This is probably the substanee once called *jess*. The fermentation generally lasts six weeks. The must is agitated while the fermentation proceeds.

They ripen and mellow their wines in stoves, which they keep in a temperature from 80° to 90° of Fahrenheit, by whieh they save six years of age; but a voyage to the East or West Indies gives a preferable quality to the wine.

An agreeable sweet wine is made in the island by ehecking the fermentation, and adding brandy to the must. The wine from the muscatel grape is never exported. The sercial is said to be the product of the hoek grape, transplanted to the island. The leaf is of a light yellowish-green, and downy. It is one of the last that ripens, and requires to be kept a good while before it attains perfeetion. It should not be drunk under seven years old, but it does not attain at that age its highest perfection. Only about forty-five pipes of sereial are made annually upon the average. The Malvasia, or Malmsey, is of the finest quality. Of this there are three kinds, produced from three varieties of the plant; that from the cadel grape is eonsidered the best. All the Madeira wine of the first elass is produced in the southern part of the island. The main distinction between these wines is that of the north and south, the latter bearing three times the price of the former. The south wines are, notwithstanding, very unequal in quality. San Antonio Campanario, Cama de Lobos, and San Amaro are among the parishes whieh produce the best growths, the soil and aspect being there the most favourable for the grape.

The tinto wine resembles Burgundy when new, but is said to be softer. It should be drunk at two or three years old, because it afterwards loses it colour and quality, and takes that of rich old Madeira, retaining its own for not more than

a couple of years. It is said to be derived from the Burgundy grape transplanted to the island. It has an agreeable perfume, and is a genuine wine. It is observed to be astringent, and to be an antidote in dysentery. The vineyard where the best is produced is called Fagaa-do Pereira. Calhota and Santa Antonia produce wines of the same class.

The produce of the island is reported to be about twenty-five thousand pipes, of which not more than three are of prime quality. Of these, about five thousand of all kinds reach England. Brandy is not allowed to be imported into Madeira, even from Portugal; that which they require they make themselves. For what object this prohibition exists it is difficult to tell, as the wines of Madeira always receive an admixture of brandy on exportation, the growers say, to enable them to bear long sea voyages, the usual excuse. (For imports, see Appendix.)

Madeira wine must attain age on the island, if it be not sent a voyage to a warmer climate, to gain its utmost excellence through a perfect decomposition of the saccharine principle. The expense of a voyage to the East Indies for this purpose is superfluous, as motion and heat will do in any climate, and complete the decomposition of the principle which tends to fermentation. This must not be done too suddenly, as some imagine; a year is probably the least period in which it can be effected. In the island of Madeira bottles of wine are said to be plunged into a trench filled with fermenting horsedung, being first well corked, and in a few months the maturity of a voyage is gained. This is very doubtful. It is not the temperature alone that will produce the effect desired in a short time; agitation is necessary. Of the good effects of this in the first fermentation the wine-grower is sensible, or why does he agitate his must? In the further decomposition of the saccharine principle it must be equally grateful. A pipe of Madeira has been attached to the beam of a steam-engine, in the engine-house, where the temperature is always high and the motion continual, and in a year it could not be known from the choicest East India.

Madeira wine is one of those which bears age remarkably well, and the wine has not yet been drunk too old. Its fla-

vour and aroma perfect themselves by years. It is in perfection at twenty years old and does well in extremes of heat and cold, in India or Canada. There is no mixture of any kind, but a little brandy, made to good Madeira wine of the first growth for any purpose whatever. Almonds and various additions are used to bring up the character of the inferior growths to the standard of the first, and impose them upon the world for that which they are not. Some imagine the character of the wines to have deteriorated of late years, but there seems no reasonable ground for the supposition. Inferior growths have been continually imposed upon buyers for those of the first elass, and there was naturally a reaction.

Madeira wine is imported in pipes, hogsheads, and quarter casks of 92, 46, and 23 imperial gallons respectively. Sometimes it is sent away in butts and half butts of 138 and 69 imperial gallons. The freight to England direet is, per pipe, from 20s. to 25s. By way of the East Indies, 7*l*. By the West Indies, 4*l*. 4s. By the Brazils, from 5*l*. to 6*l*. At home there are the customs, at 5s. 6d. per gallon, and the dock dues, if cleared in a week, about 7s. per cask. The price of the very best wine, measuring 92 imperial gallons, is 46*l*. per pipe, put on board free of charges. Malmsey, Sercial, and Tinto, are 80*l*. per pipe. The other classes of Madeira run lower. The best London particular, 38*l*. What is called "London Market," 34*l*. India Market, 30*l*. Down to "Cargo," 22*l*. Thus the finest old Madeira may be had in full quart bottles for about a couple of pounds per dozen. As this wine has been so unjustly deteriorated by the introduction of inferior kinds, the above may be some elue to the later prices the wines bear, adding the duty. None but merchants of undeniable respectability should be treated with in purchasing this wine. Advertising dealers, in an especial manner, have trafficked in a bad artiele, and affected the eharaeter of a noble growth in the market, while the public, little considerate, judge by wholesale impulse in place of that reason whieh ever prevails so little with the multitude. What are ealled "India Market," "London Market," "New York Market," and "Cargo" wines are to be shunned. They are rejected wines of the south of the island, or are wholly from the north, nicknamed "Muslin Madeira" and "French wines," from

being often passed off in exchange for other commodities. (See Appendix for a decree relative to these wines.)

The Azores produce about five thousand pipes of wine. The best are called *vino passado*, a Malmsey, and *vino seco*, a dry wine. These are grown at Pico. As long ago as the year 1639, these wines were described as they are now, and their inferiority to the wines of Madeira was also acknowledged.

[The Italian Vintage.]

CHAPTER X.

THE WINES OF ITALY AND THE ISLANDS.

GENERAL CHARACTER OF ITALIAN WINES — VINE CULTURE—CAUSES OF NEGLECT IN THEIR MANUFACTURE—VARIATION—SICILIAN AND ELBESE WINES.

THE wines of Italy have not obtained that high character which might be expected, if the excellence of the grape, and the congeniality of the climate to the culture of the vine, be duly considered. The wines of modern Italy are all made for home consumption. The interests of commerce, which lead to competition, have not yet interfered to improve them. England, amidst her traffic with all the world, drew from Italy raw silk and oil, but held out no premium for the improvement of Italian wines by a demand for them. The exchange of a few pieces of woollen goods with a nation, not less insignificant for extent than trade and population, excluded the English from exciting fifteen millions of Italians

to improve their wines, yet Italy took annually nearly five millions in British goods, while Portugal only absorbed two millions and a half in exchange for a deluge of coarse wines and her friendship, pretty much on a par in value. It is singular that statesmen do not see, when they talk of national friendships, that there can be no such thing, and that the law of interest is the sole bond of political relationship;—but this is foreign to the subject. That Italy does produce good wine is undeniable, as well as that she grows a vast deal of what is bad. There are many causes which contribute to this, besides the want of a stimulus from commerce. The petty sovereignties of Italy are a blight upon her manufactures no less than upon her civilisation. Many of these are shut up to themselves, as regards their productions, and cannot interchange with the neighbouring states without a great disadvantage, owing to pernicious duties, high beyond all reasonable limit compared to the value of the article.

It is not, therefore, because England imports no wine from Italy, the opinion is to be entertained that there is no good wine grown there; nor because the Venetians imported Cyprus wine in considerable quantities, are we to conclude there was none in Italy. In 1733 Florence wine was in all the market lists of imported wines, and to be had in coffee-houses. The price was from sixty to sixty-three shillings per chest. That the growths of Italy are not what they ought to be, or what they might be made, no one can deny. A vast deal of vine fruit is grown in a mode subsidiary to other produce. Wine* is made in a defective manner, but it satisfies the home consumer, and this being the only object of the farmer, he is careless of improvement. No part of the process among the generality of the country people is managed with the slightest care, but a great lack of judgment is universally displayed. Besides, what object has an Italian in labouring to improve that which cannot by improvement turn out of the slightest profit to himself. Trampled by the Austrian military tyranny, or by the feet of Church despots, destitute of adequate capital, and weighed down by a vexatious system of imposts, what has he to hope for by carrying towards perfection an art which can bring him no benefit? In Tuscany, indeed, things have been at times somewhat better

* *Vino, vinello, vinetto, vinettino.*—Wine weak and very weak.

for a moment: but unless the stimulus of gain, and a generous emulation can be substituted for labour without prospect of reward, no improvement can be expected to take place throughout Italy generally. A fine climate, to which the vine seems wedded, produces a large quantity of rich fruit with little trouble, and why should the peasant not enjoy, without extra care and labour, that which, on his bestowing care and labour, will yield him no additional benefit?

There are places, however, where very good wine is made, and something like care bestowed upon its fabrication; but these exceptions are the result of the care of the proprietor for his own individual consumption. The curses of a foreign yoke and of domestic exaction blight the most active exertions, and render that land, which is the gem of the earth in natural gifts, a waste, or a neglected and despoiled heritage to its inhabitants. The Italians would soon make good wine, if good wine would repay the making—if they might reap that reward due to industry and improvement, which common policy would not withhold in other countries. The peasantry generally are not an idle race.

In particular districts in Italy it is by no means a rare thing to meet with good wine. The general neglect of a careful and just system of culture, and the want of that excitement which interest creates, have not prevented the capabilities of the Italian vineyards from being known. In certain instances much care is bestowed upon the vine. In spots among the Appenines the vines are carefully dressed, terrace-fashion, and were they well pruned, and the fruit taken in due maturity, and regularly assorted, which it rarely or never is, a vast deal of excellent wine might be made, without altering anything essential besides, in the present system of vine husbandry. There is good bodied wine to be procured in Naples for twopence-halfpenny English a bottle, and at Rome and Florence for fourpence. In Calabria, so far is the system of high vine training from being prejudicial to the mere ripening of the grape as in the north, that they are obliged to shade the vines from the sun, lest in that volcanic territory the grape should become too ripe, shrivel into a raisin, and be only fit for making wine of the thickest and sweetest kind.

We have no means of knowing what the taste of the an-

cient Italians was in the product of the vine; the allusions of their poets furnish nothing definite: all is general, and no modern conjecture can be shown to be well founded. It is to be inferred, that the wines of Tuscany have not been much altered since the time a more modern poet, Redi, wrote his *Bacco in Toscana*, and sang,

> The ruby dew that 'stills
> Upon Val d'Arno's hills,
> Touching the sense with odour so divine,
> That not the violet,
> Its lips with morning wet,
> Utters such sweetness from her little shrine.
> When I drink of it, I rise
> Over the hill that makes all poets wise;
> And in my voice and in my song,
> Grow so sweet and grow so strong,
> I challenge Phœbus with his Delphic eyes!
> Give me, then, from a golden measure,
> The ruby that is my treasure, my treasure!

The Italian wines have stood still and remained without improvement, while those of France and Spain (the latter country being, in the most prominent examples, indebted for it to Englishmen) have kept pace to a certain extent with agricultural improvement and the increasing foreign demand. Moreover, there is a fashion in wine, as in everything else, and no standard exists for judging its caprices.

The system of training throughout Italy is the high method, though in some parts of Piedmont, Naples, and even in Tuscany, there are vineyards trained in the low manner, and pruned. It is not, however, to the mode of training, that the inferiority of the greater part of the Italian wines is to be ascribed. Corn is sown between them, and other grain, or vegetables are grown. The vines are planted upon soils oftentimes the least congenial to their growth, as in the plain of Pisa. They are suffered to run up to any height, and in many places are never pruned at all. In the Roman States the vines producing every quality of wine grow together, without assortment of any kind. They are conducted from tree to tree, generally of the elm species, along the boundaries of inclosures, and even by the high roads, where they run up in wild luxuriance, and waste their vitality, not in the fruit, but in leaves and branches. Even where the vine is raised on trellis-work or on poles, it is rarely

pruned or trained. In some parts of the Appenines, where a better system prevails, even there corn is sown between the rows, and the dressing is of the richest and grossest kind, highly pernicious to the flavour of wine, and preclusive of delicacy. Still there is excellent wine to be drunk in Italy in particular places, in the literal sense of the term, and potent wine too, though the inveterate drinker of strong wines might find the same defect in it as he discovers in the finest growths of Burgundy or the Bordelais.

But if the Italians neither prune their vines, nor consult the proper soil for their culture, nor refrain from leaving them secondary to the other productions of the earth, they are still more censurable in their mode of conducting the process of the vintage. Neither slenderness of capital, nor the iron grasp of foreign or domestic tyranny, can bear any portion of the blame in this respect. The grapes, after being trodden, are all thrown together in the most slovenly manner; ripe and unripe, sound and unsound, are commonly intermingled, and flung into vats that remain uncleaned from the last year's vintage, the press being rarely used. The process of fermentation is thus conducted in the most careless mode. The must is not suffered to remain without fresh additions until the vintage is over. Whilst in France they will only suffer the pressure of one day's gathering to ferment together, the Italians will throw in fresh pressings in the height of the process. That wine so made, whatever may be the defects in cultivating the vine, could ever be of tolerable quality, is not to be expected. There are some landowners, however, who possess excellent wine, which they have been at considerable pains to manufacture, but then it is not to be drunk beyond their own families, and has no connexion with what is commonly sold in the country in respect to quality. If the vintage were as well conducted, and the same pains taken with the must as in France, very superior wines would be the result, since the climate is matchless.

Some of the best wines in Italy are found in the kingdom of Naples. The soil there being volcanic is eminently adapted for the vine. These wines are chiefly of the luscious kind. The site is favourable for growing the dry wines, had it been undertaken by the inhabitants with proper care, and with due attention to the most kindly places for vineyards. Some

parts of the Neapolitan territory differ in temperature very considerably. In Calabria, though certain places are too warm for vineyards, others are exceedingly well adapted to every species of vine. Some of the wine grown there is strongly tinctured with sulphur from the soil.

The principal wine grown in Naples is the Lacryma Christi, a sweet or rather luscious wine *(vin de liqueur)*, which holds a place in the foremost rank of the first class produced by any country. Very little of the genuine wine is made even in the most favourable years. It is an exceedingly rich variety, of a red colour, and exquisite flavour. Vino Græco is a sweet wine from a grape of that name. A white muscadine wine, of fine colour, delicate, and rich in perfume, is also made near Vesuvius. At Pausillipo there is a very palatable wine. The grape of the Vino Græco, which is a favourite for cultivation, is said to have been brought from Greece. A good deal of Lacryma Christi, of an inferior quality, grown in various places around Vesuvius, as at Torre del Græco and Novella, is exported as the genuine wine. The best is grown at Galitta. At Gieraee, about forty miles from Reggio, an excellent wine is made, which seems to partake of the lightness of the French, mingled with boiled wine. At Baia and Tarento both muscadine and dry wines are made of good quality.

The Lacryma Christi of Naples is said by some to be the Falernian of Horace, as if anything like precision could be attained from the poet's description of the luxury in his existing works. Writers for the last five hundred years have had different opinions on the subject, and all are of equal value. Many assert Monte Messico to be the place of its production. Brydone says it was grown in the present desert spot called Monte Barbero. There are others who think it was made about sixteen miles from Capua, on the hills near Santa Agatha. It was of this Lacryma wine that a Dutchman exclaimed, "O Christ, why didst thou not weep in my country!"

A white *mousseux* wine, having a pleasant sharpness, is made on the Campagna, called Asprino. It is accused of acidity, and certainly does not suit a northern stomach. The islands in the Bay of Naples all of them produce wine; that of Caprea of very good ordinary quality. At Reggio two

kinds are made from the same grape, a muscadine and dry wine. At Carigliano a muscadine wine with a flavour of fennel is grown. The shores of Lake Averno and the hills near Maria de Capoua produce both red and white wines, some of which are nearly equal in quality to those grown on Mount Vesuvius.

The wines in the Roman states are generally common, but several of them good. The better kinds, most probably from negligence in the manufacture, will not keep; though in the country they are thought excellent. In Rome most of the best wines of Italy are consumed. Many of them drunk there are of the sweet kind from Tuscany, Naples, and Sicily. Of the home growths, that of Albano takes the first place. It resembles Lacryma Christi. Another is the Monte Fiascone, of a fine aroma, and intoxicating. It is grown near the Lake Bolsena. It is this wine which is also called "*Est, Est,*" from its having caused the death of a bibulous German bishop, named Defoucris, who was so fond of good wine, that when he travelled he sent his valet forward a post, with instructions: "That he should taste the wine at every place where he stopped, and write under the bush the word 'est', 'it is,' if it was tolerable, and 'est, est,' 'it is, it is,' if it was very good; but, where he found it indifferent, he should not write up anything." The bush is a bunch of evergreens, hung up over the entrance to a house to show that wine is sold there. Defoucris's valet arrived at Monte Fiascone, and approved so much of the wine, that he wrote up "est, est." The bishop soon followed, found it so palatable that he got drunk, and, repeating the experiment too often, drank himself dead. His valet wrote his epitaph as follows:

"Est, est," propter nimium "est,"
Dominus meus mortuus "est."

Which may be rendered—

"'Tis, 'tis," from too much "'tis,"
My master dead "is."

Orvieto produces excellent muscadines, of good perfume and flavour, and also some dry wines. Their sweet wines the Italians call *Abbocati;* their dry they denominate *Asciati.* Of the former kind are the Moscatello, Alcatico, and Vernaccia, the last a wine of considerable note among the

writers of Italy, all made from the common vines of the country. Vernaccia was consumed once in England, under the name of Vernage, a red Tuscan wine. No system is adopted in preparing the wine; but every vine-grower pursues his own method. Both high and low training are practised in the Roman states, though the wine made close to Rome is as bad as any in Italy. The most delicate wine is produced at San Marino, called Moscatta. Imola, near Bologna, is remarkable for its boiled wines. These, in their natural state, are effervescent, like Champagne. At Bologna they boil most of their wines, which are then called *vino cotto*, the unboiled they call *vino crudo*.

In the better days of our Lady of Loretto they had a cellar of remarkably good wine there for the use of the faithful. The Church, as was her custom, exhibited her good taste, constantly keeping up a stock of not less than a hundred and fifty tuns for this purpose. The wines of Vicenza had once a good name; they were styled, in the way of the Italians, who love epithets, "dolce et piccante." "The wine of Vicenza, the bread of Padua, the tripe of Treviso, and the courtesans of Venice," were formerly said to be the best of their kind in the world. On the shores of the Lake of Garda they make a sweet wine, like Canary, of prime quality, called Vino Santo. It is not extracted from the grapes until Christmas, and is drunk at the following Midsummer. In Parma and Placentia they grow wines which are very unpleasant, from having a strong taste of honey. Brescia has some tolerable red wines; among them is that which they call Toscolano, thought good in intermittent fevers. It is a durable wine compared to most others in Italy, as it will keep twenty or thirty years. At Castiglionè they have a Vino Santo of a golden colour, which is not fit to drink for four years, and then bears some resemblance to Tokay. In the Veronese they make a poor muscadine. The dry wine there is flat and bad, and appropriately named "Vino Morto." Lombardy produces some tolerable light wines. At Pavia a dry *mousseux* is manufactured, of no great note. The vines of Lombardy and Venice are said to return annually eighty-three millions of gallons. But Tuscany is considered the country of the vine in Italy; and so much has the notion been cherished by the natives,

that "Corpo di Bacco!" is the common oath of the lower classes. The poet of the Tuscan vine, Redi, with his "Bacco in Toscana," has enumerated his country's wines as if they were the first in the world, and gives the palm to the "manna of Monte Pulciano," *la manna di Monte Pulciano*, a sweet wine of the second class; which has the stain on its character of having killed a churchman, who drank of it too magnificently, unless an error has been made by confounding it with Montefiascone and Bishop Defoucris.

The treatment of the vine, then, is much better in the Tuscan states than in other parts of Italy. In Florence even the nobles sell their wine by retail from their palace cellars. The term "flask of wine" is essentially Tuscan, the wine being served out to the consumer in vessels so denominated, in shape that of a well-known oil vessel. A flask holds about three quarts. When filled, a little oil is put into the neck, which keeps the wine effectually from the air, as was a custom in ancient times. When the wine is to be poured out, a bit of tow is first inserted to draw off or absorb the oil from the surface of the wine.

The luxuriant vines of Tuscany are almost all of the high training, and the wines are made in some places with considerable care. The hill wines only are good, those of the plains are generally poor, and of Lecore proverbially so. The plains were once forbidden to be planted with vines. Among the nobility and landowners excellent Tuscan wine will be found, which has been made under their own superintendence. The liberal character of the government—liberal compared to other states in Italy, where so much of the soil is ruled by foreigners—has exhibited its advantages even in the manufacture of so common an article, for it has excited emulation among the better classes of society. At a Tuscan villa, the owner will, with some degree of pride, extol the vinous growths from his estate, and mention the efforts he is making to increase the excellence of the produce. They who introduced Lancastrian schools, gas, and steam machinery into Austrian-Italy were made exiles or languished in dungeons—a Porro, Gonfalionieri, or Arrivabene; and it is something to find that a Tuscan nobleman may introduce improvements on his lands, borrowed from more enlightened countries, without individual hazard, and that a generous

ruler, in the person of a late grand duke, set the honourable example himself. Without any excess, all classes in Tuscany enjoy their wine, fancying it makes good blood; in the words of their poet—

Il buon vino fa buon sangue.

It has been remarked that no two travellers agree about the merit of Italian wines. This often arises from the same names being adopted in different Italian states for wines of very opposite qualities. There is a *vino santo*, for example, in the Roman states, and a vino Græco. There are wines of the same name in Naples. Even a wretched Veronese wine, truly "vino debolissimo e di niuna stima," is called "vino santo," while there is an excellent "vino santo" at Brescia. It is the same with half a dozen of the most noted wines of Italy, and unless the place of growth be annexed as well as the name, one traveller will praise a wine of the same appellation as that which another pronounces execrable. There is no other guide than the place of growth to make the quality clear; for though the wine is often called from the grape of which it is made, as vino Græco from the Grecian grape, even this is not uniformly the case.

The celebrated Verdea is a white wine, having a bright green tinge, grown at Arcetri; it was formerly held in high esteem. The plain of Pisa produces poor weak wines unworthy of Tuscan neighbourhood. The red wine of Chianti, the wines of Val di Marina, Carmignano, Poncino, Antella, Artiminio, and others of the same class, are produced not far from Florence, and are several of them excellent. The wines of Sienna—among them Montelcino, Rimaneze, and Santo Stefano—are good wines *de liqueur*. The "Aleatico" of Tuscany resembles "tinto," and is a red muscadine wine, made near or at Monte Pulciano. It is a wine of great excellence, luscious, with a rich perfume. The Malvasia wine of Trebbio is a very fine variety. The red Florence wine, as it is called, is deeper in colour than claret, and harsher, being left long on the murk.

It has been observed that near Ravenna, on land recovered from the Adriatic, the vines attain an extraordinary size. From Verona to Vicenza it is the custom to plant the trees lozenge fashion. In Lombardy they are planted in the same manner, for the support of the vines, and between Bologna

and Modena. The soil in Lombardy is, however, far too rich to produce good wine. In the north, from Bassano to Trent, the valleys abound in vineyards, but the wine is of too luscious a character to be drunk by any but the inhabitants. The vineyards here were formerly so pestered with bears, which devoured the fruit, that they were obliged to erect straw huts upon the top of a post, just large enough to conceal a man, from whence he could shoot the intrusive animals without being perceived.

There is an endless variety of grape used in the wines of Italy, without regard to the quality. The mammolo is a red grape, much grown at Florence; the canajuol, a black Tuscan variety; then there is the moscatello, from mosca, a fly, whence also muscat and muscadine, from the ancient name of wines *apianæ*, according to Redi; the Barbarossa, or red-beard, so called from its long clusters of red fruit; the malvagia, or malvasia, from the Morea; and the Greek grape. The wine of Chianti comes principally from a creeping species of vine, vite bassa; there also is the vernaccia and aleatico vine, with numerous other kinds, many of them of the first excellence.

Chianti wine was formerly imported into Great Britain before that of Oporto had nearly excluded the other species, and the red wine of Florence continued to arrive after the importation of Chianti had ceased. The last was most probably sold for adulterating or mingling with other growths, to give them body and colour, and deceive the purchaser. It does not appear that a single cask from that country is imported now, though Sicilian wines are constantly introduced. While the wines of France, so superior to all others, are admitted at the same duty, there is little chance of such as are of a middling quality at best.

Savoy and Piedmont produce red wines of tolerable quality; those of Montmelian and St. Albero, in Savoy, are among the best in the country, and come from the slopes of Mont Termino and St. John de la Porte. One of these wines is denominated clairet, from being fermented but a short period: there are several other red wines. The best *vin de liqueur* is made upon the Rhone, near Chamberry, from a Cyprus species of vine. An effervescing wine is made at Lasseraz from the malvasia grape. Asti, near Marengo, and Biella, produce red

wines of tolerable flavour. At Asti, the plants called Passaretta and Malvasia Nebiolo produce *vins de liqueur*, with the smell of the raspberry. The wine of Montferrat, near Marengo, is esteemed; the red is deep coloured and intoxicating. The wines of the Genoese territory are of little repute. In that city there was formerly a monopoly of wine by the government, and the innkeepers were obliged to purchase of their superiors. It was upon this account, most probably, that a church was built to our Lady of the Vineyards, the monopolists, as monopolists will, turning even religion to account for lucre's sake.

In Sardinia, the produce of the vine is very abundant, so that the fruit is frequently left upon the vines for want of vessels to hold the must. An amber-coloured wine called Nasco, and a red wine named Giro, are the most remarkable. There are also several sweet and ordinary wines. The wines called Caunonao, Monaca, and Garnaccia, are exported to Holland and Russia.

Elba grows a little red wine of excellent quality. A hundred vines will produce from twelve to fourteen barrels on the average. The older the vine the richer is the wine: some are one hundred and fifty years old. The hermitage of Monte Serrato and the environs grow Moscatello wines. The Aleatico and Bianillo of Elba are red Moscatello, and resemble Monte Pulciano when it has lost its peculiar odour. They make there a champagne of the Procanico grape. They have also a wine called Bischillatto. The Elbese wines will bear a sea voyage well; some have been exported to America without injury. They plant their new vineyards in December, and are assisted in their vine culture by labourers from the neighbouring coast of Italy. It is remarked, that the wine made from the vineyards in the valleys of the island, will not keep long, while that from vines grown on the hills is durable. The soil is a red sandy stone. Little is known of these wines in England, but as the taste for strong wine, even in the middle circles, is on the decline, it may be hoped that a variety from other countries will supply its place; by this means competition will be excited, and wines of greater excellence be produced to exchange for our manufactures, from places hitherto little known here for the cultivation of the vine. The Lipari

Isles have tolerable wines of the ordinary class. Their Malmsey is excellent; that drawn from the volcano Stromboli is held in much esteem, and nearly all exported.

Sicily produces wine in great abundance; but the same remarks which apply to the bad husbandry and vintage of Italy will apply to this island. The best wines of the province of Mascoli grow on Etna, and are red, being almost the only good red wine of the class in the island, though others are produced at Taormina and Faro, but they have a taint of pitch. Syracuse produces over its mouldering remains a red muscadine, equal to any other in the world, if not superior. A white *vin de liqueur* is also made there, but only of the second class. Messina furnishes much wine for exportation. The Val di Mazara and its vineyards give wines known in England, as well as Etna and Bronte. Marsala, when obtained without the admixture of execrable Sicilian brandy, is an agreeable wine, something like Madeira of the second class, and of great body. A voyage to India and home renders this wine, when of the best quality, a most excellent dinner wine, equal to Madeira. The difference is scarcely to be credited. Augusta produces wine having a strong flavour of violets. The Sicilian wines may be said to have received more attention since the closer connexion of England with the island took place. The soil is excellent, and when the true interests of the vine-owners and merchants are clearly seen by them, growths may be obtained which will add considerably to the variety of the table, while their strength will meet the class of persons who relish the more fiery wines, for of this class are all those with which commerce has yet furnished Great Britain from Sicily.

[Wine Vessels.]

CHAPTER XI.

WINES OF HUNGARY, AUSTRIA, STYRIA, AND CARYNTHIA.

HUNGARIAN VINES—CALCULATED PRODUCE—PRACTICE AT THE VINTAGE—DIFFERENT KINDS OF WINE—PRINCIPAL VINEYARDS—AUSTRIAN WINES—CARYNTHIAN AND SCLAVONIAN.

The wines of Hungary have long enjoyed a well-merited fame, and though no great variety is known of such wines as go to foreigners by exportation, they rank so high in the highest class of the products of the vintage, that they have borne the name of Hungarian wine far beyond where it has ever been seen or tasted.

It is pretended in the country, that Probus first introduced the vine into Hungary from Italy, planting it near Mount Almus; but it is far more probable that it passed from Transylvania, and came into the country from the north-west of Asia. The produce of the wine districts of Hungary is estimated at eighteen millions of eimers, of ten gallons each. The vineyards which produce the best wines are those of Ofen, Pesth, Tokay, the Syrmia in the south, Groswarden, Erlon, and Warwitz in the Bannat. The consumption in the country is very considerable, and a great deal is exported. Tokay wine was first noticed extensively and became fashionable about the middle of the seventeenth century. It has

rather increased than diminished in reputation since. In 1807, the common Tokay, Tokay Ausbruch, and Ausbruch of other kinds, amounted in value to 657,762 florins, including thirty thousand eimers of superior, besides 2813 casks of common Tokay. The great fair for the wines of Hungary is held annually at Pesth. Great encouragement is given by the government to vine cultivation. The Hungarians enjoy their wine, and generally carry a flask on their journeys called Csutora. Their songs dwell much on their wine of Tokay: they sing that their

> ——Muses, young and laughing,
> Dwell in vineyards of Tokay.

The manufacture of the wine is very coarsely carried on by the peasantry, who are, notwithstanding their want of care and system, very observant of cleanliness in all that concerns the vintage. The wine presses and vats are well cleaned with boiling water, in which vine leaves have been steeped. The fruit is collected in wooden vessels, which are carried by the labourers, and overseers attend to see that no grapes are left on the vines. The different gatherings are collected in vats having a double bottom, the uppermost of which is pierced with holes for the juice to pass through, while the grapes are beaten and bruised with a stick. When the upper vessel is full, its contents are taken to the press. They generally divide the gathering for the red and white wines, but do not reject the bad grapes. All are pressed together, and the must thrown into a large vat to ferment. When the grapes are too abundant for the operation of pressing, they put them into sacks and tread them out, and the contents of the sack are afterwards put by for distillation. The red grape is seldom pressed at all. Cattle are fed on the refuse of the press. The Hungarians reckon sixty varieties of grape.

The vineyards in Hungary are permitted to be purchased by the peasantry. They are obliged to pay a tenth to the lord of the soil, which is considered a heavy tax upon their industry, and they are kept in a state of miserable poverty by their lords and rulers. The price of old red Ofen wine, astringent, and like Burgundy, was at Pesth, in 1813, from fourteen to twenty florins the eimer of about ten gallons.

New wine from eight to twelve, and common wine from six to eight. In 1814, old red Ofen wine was from thirty to forty florins, and old white from thirty-two to forty-five. Fivepence a bottle, which is about the price in 1814, was much dearer than the wine had been in preceding years. About thirty kinds of Hungarian wine have been reckoned. The most celebrated is the Tokay, called the "King of Wines," the product of a district around the town of that name, extending about twenty miles, called the Submontine or Hegyallya, in North-East, or High Hungary, in the county, or circle, of Zemplin. The Hegyallya is a range of the Carpathian mountains, in latitude 48°. Throughout this district the grape is large, and of a rich luscious taste. The best grapes in Hungary are those of Virovichitz, near Vacia.

To return to the Tokay. The grapes for this wine are the Hungarian Blue, when ripe called Trockenbeeren. They are collected late in the season, almost shrivelled up to raisins, and then carefully picked one and one. The species called *Formint* and *Hars-levilii* furnish the prime Tokay, called Tokay Ausbruch. The vines are reared pollard fashion, and the vintage seldom takes place before the end of October. The Trockenbeeren, or overripe shrivelled grapes, are by that time shrunk enough, and are carefully placed on a table grooved, from which the juice runs into earthen jars, and forms the rich "essence of Tokay," through their own pressure. This wine is like the syrups of the south of France, and is set aside by itself. The quantity made is small, very thick, and considered most precious. The thickness made it a characteristic; hence the remark, "Spain for strength, France for delicacy, Italy for sweetness, and Hungary for thickness." The grapes thus used are trodden in a vat with the naked feet, and a small portion of wine essence is added to the must, which is allowed to stand twenty-four hours, and then set to ferment. This last is the famous Tokay wine, or Tokay Ausbruch *(ausbruch*, or flowing forth of the syrup). It ferments for two or three days or more, during which it is stirred, and the matters which arise to the surface are skimmed off. It is then strained into casks. Tokay has a powerful aroma. It does not become bright for some time after it is in the cask, nor is it ever as bright as the favourite wines of the West of Europe. The taste is soft and oily. The flavour earthy and

astringent. Tokay Ausbruch contains sixty-one parts of essence, and eighty-four of wine. The Maslas is a more diluted species of the Tokay, containing sixty-one parts of essence, and a hundred and sixty-nine of wine.

The best wine of Tokay has so peculiar a flavour of the aromatic kind, and is so luscious, that the taste is not easily forgotten. In truth, it is more a *liqueur* than a wine. This wine sells in Vienna for twelve pounds sterling the dozen. The vineyard belongs to the Emperor and certain of the nobles; the Tarczal grape produces the best. The side of the slope on which the vineyards lie, is about nine thousand yards long; but the choice portion, called Mezes-Malè, is but six hundred, and is reserved with its produce for the Emperor and a few of the nobles. Tokar and Mada fruit rank next; and their wines are remarkable for sweetness and delicate aroma. The vineyard of Tallya is reputed to have most body, and that of Zambor the greatest body. The wines from Szeghi and Tsadany are aromatic, while the wines of Tolesva and Erdo Benye are best for exportation. Tokay cannot be drunk under three years old. The wine ferments in the casks on transportion by sea, and thus clarifies itself. In bottling, a space must be left between the cork and the wine, or the bottle will break. In Hungary, a little oil is poured upon the wine; it is then corked, and a piece of bladder tied firmly over the cork. At Cracau this wine has been kept of the hundredth vintage. The new is called there, *vino slotki;* the old, *vino vitrawno.* The colour of the prime Tokay should not be of a reddish hue, though there is an inferior sort of that colour; the taste soft, and not sharp or acrimonious; it should appear oily in the glass, and have an astringent twang, a little earthy. The aroma, however, cannot be mistaken, as that of no other wine resembles it. Almost all the wines sold as Ausbruch-Tokay are the produce of the Tokay vineyards in general. St. Gyorgy, Œdenburg, nine German miles from Presburg, and Rust, produce an Ausbruch of good character. Menes, or Menesch, in the county of Arad, grows a red wine, sweet, with a fine bouquet. The Ausbruch of the Œdenburg is less powerful. Gyængyæsch, near Mount Matra, produces red and white wines.

The wine of Buda is red, and was once a favourite wine in

England. The Scxard resembles Bourdeaux. The Groswarden wine is of excellent body. Warwitz, in the Bannat, produces wine which resembles Burgundy. The rich red Méneser wine is very good, and, with Menes Tokay, is grown upon a range of hills of clay-slate, so called from the village of Menes, or Menesch. The strata on which the Tokay is grown differ, but all consist of substances favourable to the vine, and mostly volcanic. There are numerous other wines, of various qualities, never exported. There is a red wine called Schiller, and another species, like Champagne, called Schisacker.

The wines called Palunia and Tropfwermuth pass under the general name of Wermuth. They are a preparation of grapes with wormwood, seeds, and spices of different kinds, over which they pour old wine, and cork it up. It is drunk at home, and rarely exported. This, too, is a wine used medicinally, and drunk as a mixed wine. At Oxford and Cambridge, "*Bishop*" used to be made by infusing lemons or oranges in claret, with sugar, and warming it with spices. In Germany they use Burgundy and toasted oranges for bishop, old Rhenish for "*Cardinal*," and Tokay for "*Pope*."

The vineyards of the Ausbruchs and the Maslas pay no tenths to the lord of the soil. They are not confined to Tokay alone, but extend to other places in the Syrmian. The tenure of the peasant is generally only the good-will of the lord. Many of the estates are but temporarily occupied about a month before the vintage. The proprietor at other times leaves his house and vineyard to the care of a peasant, for which his wages are increased. The vintage is over early in November; the fruit is, a large part of it, white. The vine cuttings are taken away, the poles removed, and in some places the vines laid in and covered with earth, all being prepared before the first snow falls upon the land. The average produce is almost a hundred thousand eimers.

The wines of Tokay were at one time not permitted to be made beyond a certain quantity in a limited district. The thick Tokay essence is enormously dear, and even in Vienna is rarely to be tasted at the tables of the opulent. The practice of mingling the essence with the common wines has given the latter a celebrity which they scarcely deserve, and lessened the quantity of the essence sold. These wines have

a harsh taste, which is highly esteemed in some parts of the Continent. The genuine Tokay is not commonly exported in wood, but in small bottles. It is an enduring wine, of a colour to be compounded out of umber and ochre, with a bouquet and taste very peculiar. The bottles do not contain much more than a pint English—perhaps what is called in Hungary a "media," eighty of which make the small barrel denominated an "anthiel."

The value of Tokay is another example of the caprice of taste or fashion in wine. The rich muscadine of Syracuse, or the lagrima of Malaga, seem in every respect equal, and even superior to it in richness. Though the peculiar flavour in the wine of Tokay will easily distinguish it from them, yet that flavour itself has nothing more than its singularity to recommend it. Few Englishmen would prefer Tokay to wines very much its inferior in fame.

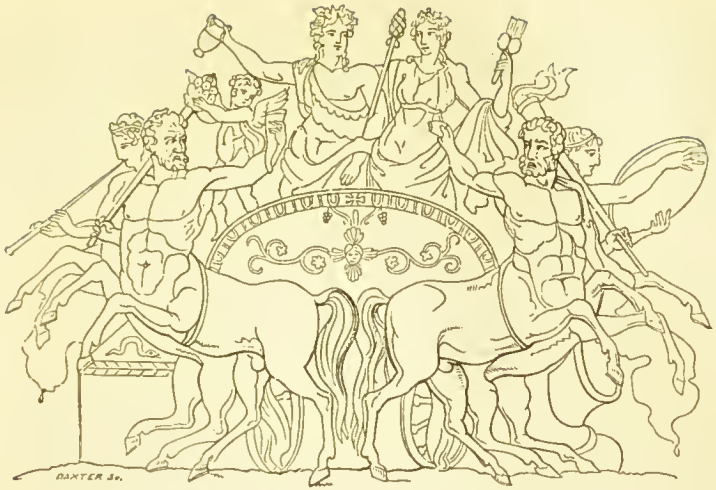
The Austrian wines are, some of them, of very good quality, though they are little known. Blumenbach states the produce of the whole Austrian empire, including Hungary and the Italian provinces, at thirty-three millions of eimers of ten gallons each, or above two millions and a half of pipes of a hundred and twenty-three gallons each, or about a third of what is produced in France. Some make the produce higher, or nearly six hundred millions of gallons, of which sixty millions are said to be exported. The archduchy is reported as producing thirty-six millions of gallons. The product of Moravia is six millions and a half gallons; of Bohemia, four hundred thousand. Burgundy vines are planted in Bohemia, but the red wines made from them are not of an enduring quality. Some tolerable wine is produced at Polcschowitz, in Moravia. In Austria Proper the best wines are grown in the neighbourhood of Lichtenstein. They are stronger than Rhine wines, are of a greenish hue, and may be drunk young. The mountain wine, to the south of Vienna, called Giberwein, will keep thirty years.

A good wine, next in quality to the Hungarian, is made in Transylvania. An Ausbruch, resembling Tokay, is grown there. Some very good wines are also made near Birthalmen. The produce of the country is said to be fifteen millions of gallons. In the Tyrol and vicinity of Trent, there is a common wine, of excellent quality, but all consumed in the country.

In Carynthia, some wines resembling those of Italy are made; and in Carniola, near Moettling and Wipach. In Styria, eighteen millions of gallons are produced. The Luttenberg wines of Lower Styria are among the first; and those of Sansal and Wiesel are extolled. In Istria tolerable wine is also made. Prosecco, Antignana, St. Servo, and Trieste, produce both red, white, and *mousseux*, well flavoured. Berehetz is a wine grown on a rock in the Adriatic, sweet, and of a deep-red colour. *Vins de liqueur* are made at Capo d'Istria, Pirano, and Citta Nova, called St. Patronio. Piccoli, Petit Tokai, and St. Thomas, are good wines of their class. At Friuli much wine is made; and that of Corregliano is highly esteemed at Venice. The luscious wine made at Piccoli is equal to the *vino santo* of southern Italy.

Syrmia and Posega, in Sclavonia, produce red and white wines of good flavour and strength, and the neighbourhood of Carlowitz is noted for its red wine. The kingdom of Illyria produces nearly eleven millions of gallons, consumed in the country. The wines of Croatia are made best at Mosyvina, and resemble Burgundy. At Vinodal a sparkling wine is made, of good flavour. In Dalmatia they make a wine at Sebenico called Maraschina, whence the name of the liqueur Maraschino di Zara, from Zara, in the same territory. The best wines of Ragusa are produced at Gravosa. In general, the vines are much neglected in Dalmatia. The vineyard ground occupies in Zara about 36,426 acres; in Spolato, 53,861; at Ragusa, 18,132; and in Cattaro, 3567: in all, 111,987 acres. The wines are not of a goodness sufficient to render them adapted for commerce. They have, however, a delicious wine called Marzenius del Teodo; and they have a tolerable Muscatel. At Prosecco some good wine is grown. The whole produce of the country is estimated at eight millions and a half of gallons.

In Moldavia the best reputed vineyards are near Cotnar. The wines of Piatra are held in good esteem. The wine of that name is green, and becomes deeper by age. It is nearly as spirituous as brandy, and by many is preferred to Tokay. Much wine is sent from this province to Russia. In Wallachia they have light wines. There are also tolerable wines produced in abundance in Romania. In Macedonia, the monks of Mount Atlas are great cultivators of the vine.



[Bacchus and Demeter, from a Cameo.]

CHAPTER XII.

THE WINES OF GREECE.

GREEK WINES GENERALLY—WINES OF THE ISLANDS—CYPRUS WINE—WINE OF THE COMMANDERY—MODE OF MAKING, AND QUALITIES—WINES OF THE IONIAN ISLANDS—OF ALBANIA, ROMANIA, AND OF THE RUSSIAN DOMINIONS.

Of the wines of the ancient Greeks we know little. That they preferred old wines to new, that they mixed water with their wines, and sometimes used them perfumed, that an habitual drunkard was considered infamous, and that the names of some of their wines may be found in the works of the writers which have reached our time, together with the names of the cups or vessels out of which they quaffed the juice of the grape, is familiar to every incipient scholar. To the quality and taste of the wines of ancient Greece tho moderns must remain strangers. From all which has come down to the present day, it does not appear that aught which can be of the least advantage to our age is known respecting the treatment of the vintage or culture of the vine. It is to useful information, rather than to the gratification of curiosity, that this volume is directed. The manufacture of wine in Cyprus at the present hour, which is described at length

in this chapter, is that which, it is most probable, resembles nearest the general conduct of the vintage among the ancient Greeks. The general character of dry, sweet, or luscious wines, which depends principally upon the soil, or moment of gathering the fruit, must have been similar in their times to that in our day. It is not thus uncertain with matters of a more important character. The glory of Greek literature and art is as brilliant now as ever, and matters of mere *gourmetise* may well be spared, seeing others of so much more importance remain to us. The flavour of the old Greek wines would, in all likelihood, have been to a modern palate worse than "caviar to the general."

Since the time of the conquest of Constantinople by the Turks, it is not at all likely that in the Greek islands the mode of manufacturing the wine should have much changed, however the quality might have become deteriorated. So recently as the period when the power of the Venetians was extended over these islands, the vintages were celebrated. In Napoli di Malvasia, about seventy miles from Napoli di Romania, in the Morea, was made the renowned Malvasia or Malmsey, which has since been imitated in almost every other wine country in the world. The vines from thence are said to have been transplanted into Candia. The yoke of Turkish despotism falling less heavy upon the islands than upon the mainland, habits were less altered there; and when little Malvasia wine was made in the Morea, it continued an article of very considerable importance in the exports of Candia, even after the subjugation in 1670. Malmsey in England was only twopence a quart in 1492, but in 1550 the price was doubled. Henry VII., whose love of wine was as great as his heart was mean, laid an increased duty upon wine from Candia.

The soil of the islands and the mainland of Greece differs very much, but a large proportion is particularly favourable to the growth of the vine. Hills of calcareous earth, with slopes of benign aspect; gravelly soils, and others of volcanic origin, offer situations for vineyards of rare occurrence. The rule of the Moslem, unfortunately, made the profit of the slave too small, and his tenure of land too precarious, for him to labour more than enough to answer barely the ends of animal existence, after satisfying the rapacity of his masters.

The vine is cultivated in different parts of Greece in various methods. In Thessaly—where the Turks used to drink the must, though they would not touch the wine, in order to evade the breach of their prophet's command—in Thessaly the vines are trained for the most part after the low order, being what are styled dwarf vines. They are not propped. The bunches are for the most part fine and luxuriant, of a luscious and rich taste, and as large as plums. The wine is sweet, and would be good, but it is tainted with the disagreeable taste of pine resin, introduced with the notion of flavouring and preserving the wine; an ancient custom. A careful fermentation, with the naturally saccharine nature of such fruit, would be adequate to every measure of durability.

On the mainland of Greece the vines were formerly numerous, and the produce considerable. In the late war whole vineyards throughout entire districts were rooted up by the Turks, and in the Morea the most wanton devastation was committed upon them by the troops of Ibrahim Pacha. In some places the high method of training over trellises prevails, in others the plant is not allowed to rise but a foot from the ground, and is kept closely pruned. A cup is excavated round the main stem to retain humidity at one season, and at another to prevent the grapes from touching the soil while the heat of the sun concentrates within it. At Corinth, where the vine flourishes remarkably well, it is not trained upon trellis-work, as in some other places, but the vines are shaped like currant bushes, and the clusters of small pearly grapes hang around them. Near the Field of Platæa, vines are planted to a considerable extent. Nothing but the want of a better and more scientific method of conducting the vintage, prevents the wines of modern Greece from ranking higher. The fermentation is carelessly executed, and the skin, with its pitch, makes the wines worse, yet some of them would be drunk and pronounced good by foreigners but for this defect.

Candia produces much excellent wine at this day, though since it was conquered by the Turks its vintages have greatly deteriorated. The principal wine manufacturers are the monks. At Arcadi large and noble cellars are shown at the monastery, where the produce of the vintage was formerly stored. Much boiled wine was prepared in this island. The

grapes are some of the finest in the world. The lands of the monastery of Arcadi extend to the sea, and the wine they make is a rich Malmsey. Good clairets are produced at Kissanos; and at Rethymo the Jews make a tolerable white wine, called the "Wine of the Law." The white muscadine is not equal to the red, which is named Leattico: it is pleasanter then tent to the palate, and is sold very cheap. The wine-drinkers of Candia were once so notorious, that a party of them would sit round a cask, and not rise until it was emptied.

The wines of Rhodes are said to be excellent; but they are nearly all of the sweet or luscious kind. One grape is as large as a damascene plum, and very similar in colour. The sun is sufficiently powerful in this island to keep the vines in bearing every month in the year, provided water is judiciously given to them, so that ripe and incipient grapes are seen on the same vine. This practice being thought to impair the plants, the watering them in December and January is customarily omitted.

In Cyprus, the hills on which the vine is cultivated are covered with stones or flints, and with a blackish earth mixed with ochrous veins. Some soils contain particles of talc. The vines are planted in equi-distant rows in the rainy season, or about November. Young vines are in some spots planted in trenches three feet deep, in which thyme plants grow, or have been planted to shelter them in the wet season, and to preserve the earth about them. The plants are put into the ground with a ladder-shaped instrument of two staves, to receive the foot that forces it down. The plant is sunk about eighteen inches, a little water is poured in on the root, and the opening filled up. In other places no trench is made, unless a hollow round the plant, when the fruit appears, may be so called, excavated to prevent the grapes from touching the ground and rotting. This is further beneficial by retaining water or moisture, so needful in a climate intensely warm. No trees are allowed near the vines, and the surface is well weeded. The vines grow thick in the stem, but are not more than three feet high. They are pruned in February and March. Two shoots are left on each plant, and two buds on each shoot, or if three shoots are left, only one bud is reserved on each. No props are used, for it is believed that

the grapes receiving the concentrated and reflected heat from the ground, as well as from the sun's direct rays, ripen faster. A few grapes only are borne on each plant, but these are plump and fine. They hang by long stems; are of a rich purple colour, and the pulp a reddish-green. The grapes of the Commandery have a thin delicate skin, and the pulp is compact. The vintage lasts six weeks, beginning about the twentieth of August, and the grapes for the more common wines are first gathered. When collected they are placed on covered floors, called *punsi*, and spread out with care to the depth of eighteen inches, where they remain till the seeds begin to drop from them. They are then raised with shovels and carried into rooms paved with marble, or covered with a cement equally hard and durable, a little sloping on one side. They are there bruised with a flat mallet, and squeezed three or four times under small presses, called *patitiri*, the thick expressed juice flowing into a vessel placed at the lower side of the floor, which is emptied as it fills into small vases, and conveyed into baked earthen vessels, half buried in the earth, their bases cone-shaped, ending acutely like amphoræ. The wine ferments in these forty days. In some parts of the island the vessels are covered during fermentation.

The wine in the fermenting state cannot be taken without causing severe colic pains. To prevent these it is sometimes fined by filtering it through bags filled with vine ashes, but when thus treated it never afterwards attains perfection.

When the forty days of fermentation have expired, the vessels are uniformly shut up close with covers of baked earth. The wine is now observed to be much lighter in colour than before. The vessels in which it ferments are either simply coated with pitch or painted internally, as soon as they come from the potter's furnace, with a boiling liquid composed of turpentine and pitch, mixed with vine ashes, goats' hair, and fine sand, which effectually closes the pores, and never falls off. The art of making these vessels is very ancient, even to the remotest ages. They contain from twelve to twenty barrels each. The deposition of the wine in them is styled *mana*. The wines are often transported to the coast in leathern bags, carelessly pitched, and detrimental to the flavour of the wine, which it takes many years to lose. The cellars, though in so hot a country as Cyprus, are all

above ground. The casks are placed about six inches from the floor on joists. They have little light, and no attention is paid to aspect.

The country in Cyprus, situated between Limassol, Paphos, and Mount Olympus, not the ancient mountain of that name, contains a good many hamlets and villages, and was anciently occupied by the Commandery of the Templars and the Knights of Malta. The wine made of the best grapes is that still called the wine of the Commandery. The villages of Zopi, Omodos, Limnari, and Effragoni, afford good wines also. At Limassol the wines of the country are collected and transported to the cellars at Larnic, which are the largest in the island, and there the wine trade is concentrated, or rather was some years ago, for the commeree of the island has of late much declined.

The wines of the Commandery are made in August and September, from grapes of a red colour. In hue it resembles the Italian wine of Chianti. As soon as it is made it is put into the earthen vessels before mentioned. After being thus left for a year, its red colour changes to a yellowish tint. It fines itself by age, so that at eight or ten years old it is of the same hue, or nearly, as the sweet wines of Southern Europe. The dregs it deposits are very thick, and they are supposed by attraction to aid the fining, so that the wine remains upon the lees until it has attained its last degree of limpidity. When the wine is brought from the country into the towns it is placed in casks, where there are dregs, for it must always remain on them a year at least after it is made, to acquire perfection. They do not regard whether the casks are full or not, for it makes no difference in the quality of the wine. They even deem it necessary in some places to empty the casks several inches down when they are put into the cellar. Thus various are the modes of bringing wine of different qualities to perfection in different climates.

Cyprus wine is sold at the vineyard by the load. Each load is sixteen jars, and each jar holds five Florence bottles. The vendor must warrant the goodness of the wine until the fifteenth of August following the vintage, or for the space of a year, no matter whether it remains in his own possession or in that of the purchaser. If not found good it is returned; if the contrary, it is deemed a proof of its goodness in every

way satisfactory. The quantity of real wine of the Commandery produced is about ten thousand jars, though forty thousand were once sent out of the island under that name. The Venetians were the largest purchasers of the inferior and newest kinds, which did not bring more than a piastre a jar in Veniee. Some of the same quality is sent to Leghorn. The better kinds sent to Italy, France, and Holland, are sold for two and a half or three piastres a jar, equal to five bottles. This wine is generally exported in casks, of three hundred and fifty bottles each. The duties in the island used to be about ten piastres the cask. None of the wines exported are more than ten years old, and very little exceeding twenty will be found even in the private cellars.

The wines of an inferior quality produeed in Cyprus are generally drunk by the inhabitants. Like the wines of the Commandery, they grow yellow by age, and, singular enough, seem then to approaeh very near in quality and flavour to those famous wines. A little of them is exported to Syria, but none to Europe. They taste insupportably of pitch.

About five thousand jars of muscadine wine are made in Cyprus; the best at Agros. The sweetness of this wine is excessive; it drinks best at one or two years of age. It is clearer than the Malmsey of most other countries, and at first is white, but acquires a red colour and increase of body by age. The priec is the same as that of the wines of the Commandery, a little varying with the goodness of the vintage.

These wines, it is most probable, have undergone little or no ehange since the days of Strabo and Pliny, who reckon them among the most valuable in the world. Selim II. conquered the island, that he might be master of them. At that time wines of eight years old were found, which it is said burned like oil. Cyprus wine, the Cypreots say, is, when old, a remedy for the tertian and quartan agues, so prevalent in the island, and exeellent for eleansing wounds. After sixty or seventy years, some of this wine becomes as thiek as syrup.

The age of Cyprus wine may be known by pouring it into a glass, and observing whether particles, like oil, adhere to the sides: this cannot be produced by art. It is often adulterated with luscious wines and perfumes. Cold is in-

jurious to its quality. It should be placed before a fire, if drunk in the north, during autumn or winter.

One very remarkable circumstance attached to the wines of Cyprus is the value of the lees: they are always exported with the wine, if possible. Before bottling, a month or two of rest must be given to the cask, that they may subside. They settle with greater difficulty abroad than in their native island. The cask must be pierced above the dregs, and the wine will come off limpid; but this should only be done for bottling. The wine deposits no tartar on the cask, but the dregs or lees are sometimes a mixture in colour of black, red, and yellow, of the consistence of paste, but generally of the hue of Spanish snuff. The wine being poured upon them, they rise, clarify it, and subside. They are always left with the vendor, unless there is an agreement to the contrary. Ten or twelve bottles in quantity are allowed to be kept back by the vendor from each cask for this purpose. Casks with the lees sell for four times the price of those without, and hence wines that are adulterated by colouring, or with any other object, do not produce lees, and lose their strength. A small quantity of lees should be thrown into every cask prior to exportation, and when eight or ten years old the wine should be bottled.

A sort of wine *liqueur* is made in Cyprus, and exported to Syria and the parts adjacent, but little, if any, comes to the West. It is imitated in Paris under the name of *vin de Chypre*, and sold as a *liqueur* in the coffee-houses.

Some of the wines of Cyprus are so tainted with the skin, that they cannot be drunk by a stranger without water, except under the penalty of a severe head-ache. This is much to be regretted, as it arises entirely from neglect. At Omodos, some Frenchmen, a few years ago, attempted to make wine after the manner of Provence. When it had been a year in wood, and bottled for a short time, it was equally as good, and could not have been known from the Provençal wines.

There is a custom in Cyprus, among families, of burying a jar of wine on the birth of a child, to be dug up on its marriage, which wine is never sold, whatever may be the fate of the child.

Most of the smaller Greek islands produce wine. Naxos

was formerly noted for its drunkards and its temple of Bacchus. At Pirgo much wine was made about a century since. At Nicaria a white wine, very remarkable as a diuretic, is made from vines which grow among the rocks. Milo has frequently exported wine to the other islands. Samos, the wine of which was thought in ancient times to be bad, is now noted for excellent muscadine; large quantities of vines are grown there: both red and white are manufactured, and the wine is held in considerable repute. Tenedos produces both dry and sweet wines; its muscadine is famous, it having exported five hundred thousand okes a year. Santorini is remarkable for the sulphurous taste borne by its wine when new, and for its vino santo. This vino santo is sold for three or four parats the oke at the vintage: it is made from white grapes, which are first exposed for seven or eight days on the roofs of the houses, then trodden or pressed, and fermented in close casks. It is a luscious wine, and a million of okes is said to have been exported in some years, principally to Russia. The wine of Meconi is so mingled with water to increase the quantity, that few will purchase it. Scio still produces wine called Homer's nectar, as it did two thousand years ago; the white and black grapes are mingled to make the wine, which is in much esteem in the Archipelago. Another kind, called Nectar, until matured by age, strangers cannot relish. The grape is said to be styptic. Mista is the most renowned vineyard. The wines which go under the name of "wines of the Dardanelles," are of very middling quality, and come for the most part from Lampsacus, in the Sea of Marmora. Lampsacus, Thasos, Chios, and Lesbos, were once famed for excellent wines, and upon all their coins heads of Bacchus and Silenus appear, or else ivy leaves, amphoræ, grapes, or panthers, in allusion to the character they bore. Chio is high and very hilly on the south side, with deep valleys; on the other side the land is low; it therefore possesses every kind of site agreeable to vine culture. The hills called Menaleto, St. Helena, Vicchio, Pino, Cardanella, and St. Angelo, were noted a century or two ago for their wines; but Arvisio, a wild, rough, rocky spot, excelled them all. There was one species of wine lately grown on this island that almost instantly took away the faculties upon a stranger's indulging in it. The wine of Chio or Scio was anciently in great

repute. Cæsar gave away a hundred vessels of it on the occasion of his triumph.

The Ionian Islands, now in the possession of England, grow some good wines, whenever proper care is exerted in the management of the vintage. Zante wines are in much esteem. This island grows about 8000 casks annually. They are both dry and sweet. One of the latter is a *vin de liqueur*, uncqualled in the Levant: it resembles Tokay, is called *Jenorodi*, and made of the Corinth grape. Here also is a rich muscadine wine. All the wines grown on the island are strong. They make a wine which is taken as a cordial, although water is added to the grapes after they are crushed. Corfu produces strong wines, and a cordial *liqueur* from dried raisins, called Rosolio. St. Maura and Cerigo grow red wines of the quality of inferior Bourdeaux. Cephalonia has a white muscadine peculiar to its own shores, besides the common red wines of the Seven Islands. The wine of Luxuria, in Cephalonia, was formerly much esteemed.

Finally, the territory of Greece possesses every variety of soil to produce the finest wines, but negleet in the vintage and culture of the vine, as well as in the process of fermentation, render much of the product of the country almost nauseous to foreigners. The use of the resin, mingled with the wines to impart that short-lived durability which a proper management of the vine and its products would ensure without, is considered by the Greeks as a neccssary and agreeable flavour.

The amount of wines grown on the mainland of Greece, according to Gordon, the traveller, in his exeellent work upon the country, was nearly 4,640,000 okes, valued somewhere about 62,000*l.* sterling.

Albania, Romania, Macedonia, and Bulgaria, all except the last, produce very good common wines, both red and white.

The wines grown in Russia bear no comparison in quantity to the ardent spirit to which a coarse, half-civilised people of the north may well be supposed to yield the preference. About twenty-eight millions of gallons of coarse brandy are every year distilled in that empire, besides a variety of other liquors; but, as may be inferred, little of this is the product of the vine. In the southern parts of the empire the vine

has of late years been cultivated with success, and as the territory of the Tzars is extended in this direction by force or fraud, the extent of Russian wine produce will be yet more enlarged. That manufactured at present is chiefly made at Astracan and in the Crimea. It has been already observed, that 600,000 vedros of a red wine called Kokour were grown in the Crimea in 1831. The wines sell, from the grower, at about six piastres the vedro.* The Crimea wines are thought the best in the empire. From the description of travellers, some of these are good red wines. There are about three hundred vineyards. Pallas says, that the valleys of Soudak and Koos manufacture the best. A large proportion of them is sent to Cherson on the Black Sea. The manufacture is stated to have been confided to Greeks in many instances, which speaks ill for the management of the Crimean vintage, to judge from the slovenly mode of conducting operations in Greece. The process of fermentation is carried on much in the manner of that already described as being the usage in Cyprus, or, if anything, rather coarser. The vats are pits dug in the ground, and plastered on the inside with clay and lime. From the circumstance of a hundred eimers yielding four of brandy upon distillation, the strength of this wine may be easily inferred.

The inhabitants of the Crimea formerly prepared thick wines, or rather syrups, as well as confections, from the produce of their vines, and distilled brandy from the refuse of their grapes; but this is now given up, from finding the sale of wine more profitable. The vineyards of the Crimea are on the increase, and the climate is excellent; but it is easy to imagine the manufacture of a good wine is likely to remain a desideratum for some time to come. Bostandschi-Oglu is the wine most approved, grown at Koos. At Kaffa there is a *vin mousseux*. Wine of the Crimea is now shipped at Soudak for Tanganrog, which shows that the quantity of wine made there is on the increase. One recent cargo was composed of a white wine, very much resembling French Chablis, and some part of another was a new effervescing wine very similar to Champagne.

The vineyards of Astracan are old, and the grapes, which were first introduced there from Persia by an ecclesiastic,

* A vedro is about fourteen gallons.

some time in the fourteenth century, have long been noted for their fineness and flavour. The first vineyards were cultivated by the government, but afterwards abandoned to private individuals, very few now out of one hundred and thirty-five belonging to the crown. It is said that Ivan Vassilievitsh first ordered the vines to be planted there in 1613. In the time of Peter the Great the grapes were first sent to Petersburg, for his table, from Astracan, on account of their fineness. They bear a high price there, from the care necessary in the carriage.

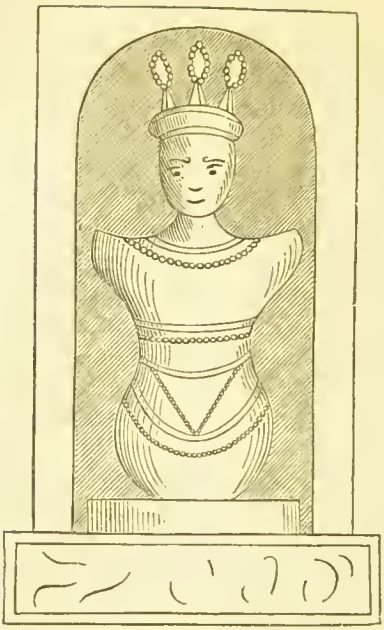
The vineyards of Astracan produce both red and white wines, of the nature of which it is difficult to convey any idea, from the paucity of information respecting them. Twenty different sorts of vines are said to be cultivated. They are covered with earth or stubble in winter. The numerous waterings given the vines in summer to improve the size of the fruit are said to render the grapes insipid. Some of the wines are described as bearing a resemblance to Moselle; others to Lacryma Christi, and some sparkle like Champagne. They put the grapes into bags of coarse cloth, and tread them, after which they are pressed.

The Don Cossacks possess a few vineyards, which travellers say produce excellent grapes. The wines they prepare, though small in quantity, are reported to be good. A white wine of Rasdorof and Zymlensk sells at Moscow very high: one vineyard is managed by a Frenchman. The wine of Tanganrog is much inferior. Sarepta is said to produce very good wine of the country. In some places of the Caucasus they hang poppy heads, before they are mature, in the casks during fermentation, by which means the intoxicating effect of the wine is much increased. The vines are left to climb, according to nature, to the tops of the highest trees, where bunches of grapes are seen baffling the reach of the gatherers at the vintage.

Notwithstanding the immense quantity of spirits made and consumed in Russia, not less than a million of roubles has been paid, for years together, upon the import of wine into Petersburg alone. An Esculapian visitor to Petersburg, who saw many very extraordinary things there, which have been a sealed book to the travellers who preceded or followed him, imagined, from the quantities of Champagne

he saw drunk in that capital, that some other country existed of that name besides the Champagne of France. The doctor would have soon discovered, had he inquired, that almost all the places in the Russian empire which contain vineyards make a *vin mousseux*, though whether it has the bouquet and delicacy of that of Ay, is another question. The Astracan grape, one of the largest and finest to look at in the world, forced by frequent irrigation to the magnitude it attains, has its flavour proportionally deteriorated. Before it is ripe, reasoning with Dr. M'Culloch, it would make a species of Champagne, and no doubt a vast deal of the sparkling wine of Astracan is consumed as such in the Russian city, to say nothing of the effervescing wines of the Crimea.

In Georgia, good wine has been made even from wild vines, but the process is negligent and slovenly. In the vineyards there is little attention paid to the culture of the plant, and the fermentation being neglected, the wine will not keep. The use of skins, daubed with asphaltum, taints the wine, so that few strangers can touch it. The country possesses all the requisite materials for making good casks. The inhabitants are described by one traveller as drinking a *tongue* a day, a measure above five bottles of Bourdeaux in quantity. The wine is so plentiful it does not cost above a halfpenny the bottle, English money.



[Bala Rama, the Hindoo Bacchus.]

CHAPTER XIII.

WINES OF PERSIA AND THE EAST.

PERSIAN LEGEND RELATING TO JEMSHEED—OF THE GRAPES AND WINES OF PERSIA—THE WINES OF MOUNT LIBANUS AND JUDEA—OF INDIAN AND CHINESE WINES.

Sir John Malcolm says, in his account of Persia, that the natives have a tradition that wine was discovered by their King Jemsheed, through an accident. This monarch had an extraordinary fondness for grapes, and placed a quantity in a vessel of considerable size, which he lodged in a cellar for a future supply. Some time afterwards, the vessel being opened, the grapes had fermented, and being found acid, were believed by the king to be poisonous, and marked accordingly. A lady of his harem, tired of life, owing to the sufferings she endured from a nervous head-ache, drank some of the wine, or, in plain matter of fact, got drunk. She slept, awoke well, and afterwards took so many potations that she finished all the poison. The monarch discovered what she had done, and thence took the hint for his own advantage.

Whether this story be true or not, the consent of universal

tradition has bestowed the origin of the vineyard upon Persia. The fruit in that country reaches a remarkable size, and the provinces bordering upon the southern end of the Caspian Sea have been always noted for excellent wine. It is said the Armenians claim the precedence, because Noah planted his first vineyard near Erivan, about a league from the city walls, upon the very same spot where he and his family resided before the Deluge. The certainty of the truth being thus upon their side must be settled by doctors learned in casuistry and divinity. The natural evidence, if it may be so called, is on the side of the Persians, since their country produces the finest grapes, some of which are a fair mouthful. Yet the white wine of Ispahan is made from a small white grape called *Kismish*, which has no pips, perhaps first brought from the island of that name, noted for fine fruits, near Gombron. The grape of the province of Cashbin is celebrated; it is called *Shahoni*, the "royal grape," golden coloured, and transparent. The grapes are kept over the winter, and remain on the vine a good deal of the time in linen bags. A Persian winter, it must be observed, is very different from an English one, the air being dry and fine for the whole season.

It is in Farsistan or Ferdistan, upon the lowest slope in the mountains not far from Shiraz, that the largest grapes in Persia are grown, though the imperial grape of Tauris is most extolled for eating and the table, being considered more delicately luscious. The whole country near Shiraz is covered with vineyards. The best red wine is made from a grape named Damas; it is said to be of good strength and body, and to keep well for fourscore years, preserving all its virtues in the highest perfection. This wine is put into flasks of glass, called Carabas, of about thirty quarts, covered with plaited straw, and packed in chests of ten bottles each. In this way it is sent to Teheran, Bassora, the East Indies, and wherever it is exported.

There are twelve kinds of grape grown near Shiraz. Some species are violet, others red, and even black in colour, as the Samarcand grape; a single bunch will weigh a dozen pounds. They sell their wine by weight, and keep it either in flasks or jars of well-glazed earth. Their cellars are strong, and built with great attention to coolness, water being often

introduced for this purpose. Seats are frequently provided in them for visitors to enjoy the wine in greater luxury, although fordidden by the Mahomedan law.

Of the quantity of wine grown at Shiraz it is not easy to form an estimate. Tavernier states, that when he travelled, between four and five thousand tuns were made annually. The grapes are placed in a vat, and well trodden, the must passing through small holes into another vessel, and thence into jars of glazed pottery, in which it ferments upon being placed in the cellar, where the must is agitated briskly. It is afterwards strained and put into bottles for sale.

One of the wines of Shiraz is a *vin de liqueur*, made remarkably sweet and luscious, and full of strength and perfume. The celebrated Shiraz wine sent to England as a present from the King of Persia was white, but some in the country is deep, even to a dark amber colour. The red wine of Shiraz, known in Europe, is like Bourdeaux in appearance, and of a taste not agreeable to strangers. The white resembles Madeira, to which it is by no means equal.

Mr. Morier says, that the vine-dressers of Persia train their vines up one side of a wall, and then make them hang down on the opposite side by suspending weights to the tendrils or branches. This ingenious traveller observes that they only water their vines near Shiraz once a year, about the tenth of April, the soil holding the moisture sufficiently well to answer every purpose until that time twelvemonth.

A great deal of wine is drunk secretly in Persia by the Mahomedans, independently of what is consumed by the numerous inhabitants of that country who are not of the Moslem creed. A vast proportion of the empire disappoints the traveller, who has heard of the beauty of the country, and the luxuries with which it abounds. The fertile spots, indeed, are equal to everything which has been reported of them; yet in proportion to the extent of the empire they are not numerous. Shiraz about a century and a half ago was more populous than at present, but even then the ruins were extensive, and among them vineyards were planted. At that time a pottle of Shiraz wine was sold for half-a-crown English. Mandelsloe, in 1638, says Shiraz was noted for the excellence of its wine and the beauty of its women, and repeats a saying

of the Persians, that "if Mahomed had been sensible of the pleasures of Shiraz, he would have begged of God to make him immortal there."

Marco Polo, the traveller, met with boiled wines on the confines of Persia as long ago as the middle of the thirteenth century. He says, that the Mahomedans of Tauris, to whom wine was forbidden by their religion, used to boil it, by which means they changed the taste of the wine, and consequently the name, whence they might lawfully drink it, through the gloss thus flung over the stumbling-block which their faith cast in the way of their enjoyment. The same writer adds, that the people were great drunkards. Tauris boasts of sixty different kinds of grapes.

Teheran, Yezd, Shamaki, Gilan, and Ispahan, are the principal wine districts in Persia known to strangers. In Mingrelia, the ancient Colchis, the soil is bad, but the wines are characterised as excellent. Georgia sends its wine to Azarbazan and Ispahan. At Teflis wine is sold openly. Wine tolerably good is said to be made in Chorasan. The Turks, both in Persia and the neighbouring countries, when they take the forbidden draught, laugh at Christians for mingling water with it; and yet if they but spill a single drop upon their own garments, however valuable they may be, they immediately throw them away as polluted. The Turks always intoxicate themselves, hence the wine manufacturers in Mahomedan countries add stimulating and intoxicating ingredients to the wines made for secret sale to the children of the Koran. Of late years the manufacture of wine, even at Shiraz, has been neglected, and it is much to be feared the produce of the still has taken its place with the Mahomedans in their covert oblations to Bacchus.

Tavernier says, that Shah Abbas II. was much addicted to wine, but did not on that account neglect state affairs. Sir John Chardin states much the same, and informs us that his successor, Solyman, loved wine and women to great excess, and being always half drunk, was exceedingly cruel in consequence. His son, Hussein Abbas, was so struck with the ill effects of wine, probably from his father's example, that he forbade the use of it in his dominions, until his mother feigned illness, and her physicians declared nothing but wine would save her life. Hussein instantly conceded the request out of

filial piety, and obliged her so far as to taste it himself, on which he became, as his two predecessors had been, a slave to a love for the juice of the grape; and the result was more fatal to Hussein than it had proved to them.

The red wine of Shiraz has been extolled by the verses of Hafiz in exaggerated strains, but, it is to be feared, from the best estimate which can be formed, that it was of a quality by no means first-rate. The Falernian of Horace and the Shiraz of Hafiz are, it is too truly to be apprehended, both exaggerations, if they could be placed in comparison with the delicate flavour of modern French growths of prime character; besides, who constituted them connoisseurs in wine for any but their own palates? Both wines would no doubt intoxicate, and both wines were delicious to the taste of the poets and their friends; but in times when plain truth is most valuable, the probability, however much it may injure early and agreeable associations, is always to be strictly preferred. Writers who follow their predilections are apt, with little regard for other considerations, to imagine modern things deteriorated from those existing in past time. Thus some assert that the wine of the ancients was best, though they are incapable of deciding the question one way or the other. No one is justified in accrediting a fact that rests upon varying and worthless conjecture.

The Armenians at Chiulful were formerly great drunkards, though not profane or quarrelsome in their cups, like their fellow-Christians who drink port wine. Instead of this, they became doubly devotional, and, when very much intoxicated, poured forth incessant prayers to the Virgin. Had this result been general in Europe, Jesuitical influence would have turned it to some advantage in the days of priestly power; perhaps proclaimed intoxication a virtue.

The other wines of Asia are few and little known. In Arabia the wine is cultivated both by Jews and Christians. The followers of the Koran, as elsewhere, drink the juice in secret, no doubt finding it sweeter for being denounced by their religion. In Arabic they call it "Khumr." In Anatolia much wine is made, and particularly at Trebisonde. Syria produces red and white wines of the quality of Bourdeaux. At Damascus the "wine of Tyre" of the Scriptures, called by Ezekiel "wine of Helbon," and by the Greeks "wine

of Chalybon," is yet made; it is a sweet wine. On Mount Libanus, at Kesroan, good wines are grown, the most part boiled. They are of course sweet and white, some much less sweet than others. The wine of Lebanon sells for ninepence and a shilling a bottle, white and red. The strongest of the former kind is the best. The common wine sells at about fourpence the bottle. The wine is preserved in jars. A wine called *vino d'oro* is in much esteem there; a dry, delicate wine, which, when boiled, sparkles like Champagne. In cultivating their wines on Mount Libanus the spade is not used, the plough superseding it entirely, as the vine rows are sufficiently distant to allow its free passage between them. The vines are not propped, but suffered to creep along the surface of the ground. Some of the wine is exceedingly delicate and pleasant to the taste. The grapes are as large as plums. These they say are of the class the Hebrews saw when approaching the Land of Promise, to which they belonged of old —if so, they might well covet the soil which grew them. The soil is strong; in certain places iron stone prevailing, in others volcanic rocks. The Maronites and natives drink freely of their wine, and are said to be remarkably convivial. At Jerusalem, white wines are made, of very poor quality.

The territory of India was the fabled birthplace of Bacchus. Sir W. Jones compares to him Bala Rama, who married an old maid named Revati, of four millions of years' virginity, so tall that the hands clapped seven times could only just be heard by her. Suradévi is the Hindoo goddess of wine. India at present produces little or none of the juice of the grape, except in the northern parts, between the Sutlej and the Indus, bordering upon the former river. To the southward the climate is too hot, and the soil too rich for vine culture. The Indians said, according to Diodorus, that Bacchus first taught them the art of pressing grapes and making wine, and that he resided in his capital of Nysa, in the modern Punjaub, that he ruled India with justice, and was after his death adored as a god. All this, whether fabulous or not, only relates to the territory west of the Sutlej, or, as it was anciently called, the Hyphasis river. Eastward of this the arms of Alexander never penetrated, nor does it appear the ancients knew anything of the country. At Lahore, beyond the Sutlej, wine is made of good quality, and all the

way from thence to Candahar, and northward to and in Cashmere, vines are planted and wine is manufactured. That of Cashmere resembles Madeira. Wine is made in Nepaul, where the best is prepared in the common way. The must is called *sihee*. Hot water is poured upon the murk and residue, and a less worthy sort is thus manufactured. At Candahar wine is forbidden to be drunk, according to custom in Mahomedan countries; but that drunkenness does happen, is plain from the punishment attached to those who are discovered intoxicated. They are seated on an ass with their faces towards the tail, and so led through the streets, preceded by the beating of a gong, and surrounded by a crowd of vagabonds.

Wine was once made in Goleonda upon the hills. During the reign of the great Akbar, whose tomb near Agra has lately been repaired, though wine was forbidden, yet it was evidently used in this the noblest city of his empire. It is related that Akbar, standing in need of good gunners, got some from on board English vessels trading to his dominions. One of these, who from the dry character of the man was evidently a tar, being ordered to fire at a carpet suspended as a mark that the emperor might see his dexterity, purposely shot wide of it. He was reproved, and told he was an impostor; upon which the fellow answered, with great pretended humility, that his sight was bad from having been debarred the use of wine, but if Akbar ordered him a cup, he could hit a smaller mark. A cup, a full quart was brought him, which he drank off, and then, firing, hit the mark, to the applause of all present. Akbar ordered it to be recorded, "that wine was as necessary to Europeans as water to fish, and to deprive them of it, was to rob them of the greatest comfort of their lives." He then gave permission to foreigners to cultivate vineyards in his dominions. There can be no doubt but the vine would flourish well on the table-lands and mountain-sides of India, as on the Nilgarry hills, where the temperature and soil are all that can be desired for the purpose. The wine used at Delhi in the time of Aurung Zebe, was imported from Persia by land, or by sea, at Surat. The wine of the Canaries was brought to the same port, and both sent overland to the imperial city, where a bottle cost in those days three crowns, though no more than three pints in measure.

A king of Oude very recently showed a fondness for wine, and yet was anxious, like a right son of his Church, to maintain the "appearance" of being a good and true believer, knowing that this was all about which he need trouble himself. He found great difficulty for some time in gratifying his anti-Mahomedan desire and preserving his reputation for holiness. At length he consulted a pious and learned mufti, who had a regard for monarchical favour as strong as the odour of sanctity with which he gratified the nasal organs of the faithful. The mufti understood the case in all its bearings, as a son of the Church anywhere would not fail to do; but what puzzled him was, how to advise to keep the matter secret. At length, the king, knowing that he could trust his hookah-burdar, who was an old attached servant, proposed that the wine should be placed in lieu of the water in his hookah bottom. "Excellent," said the mufti; "that can bring no scandal on our faith." He took his leave of the king, and the next day returned to ask a favour, which, as he was in the secret of the hookah, the king could not do otherwise than grant. In the mean while the king enjoyed his wine in security, and was considered one of the most faithful of the prophet's disciples. Nor did he ever miss the heart-cheering beverage whenever inclination pointed to it.

The Chinese are said to make a small quantity of wine, though they prefer the produce of the still from animal flesh, as in their spirit distilled from lambs' flesh, said to be very potent and disagreeable. They have a rice wine called Sam Zou. The Chinese say, that under the Emperor Yu, or Ta-yu, twenty-two hundred years before Christ, wine was invented by an agriculturist named I-tye. The government of that time, however, laid what are now called heavy prohibitory duties upon it, not with the mercenary and ignoble motive of modern rulers, to fill their pockets, but lest the people should grow effeminate from the use of so delicious a beverage. This philanthropic kind of legislation was vain. Those who had tasted could not refrain from tasting again, and indulging to excess; so that a sort of northern Tzar, named Kya, about fifteen hundred years before Christ, filled a lake with it in one of his freaks of autocratism, and made three thousand of his subjects jump into it. Grape wine was always esteemed

there the "wine of honour." Yet mandates have been issued at various periods for rooting up the vines, until the grape was almost forgotten. Grape wine is spoken of in annals of China long before the birth of Christ. Rice and palm wine are made in large qnantities. The Chinese, it is eertain, will bny European wines, particnlarly sherry, for it is often imported in British vessels, and sells well. The grape is also grown at Siam, but only for raisins to distil into brandy.

The islands in the East many of them prodnce the grape, bnt it is too luscious for making wine. Near Batavia, in Java, the vines bear ripe fruit three times in the year.

The vine has been introduced into New Sonth Wales, in all its varieties. Wine, said to be of a very tolerable quality, has been made there in small quantities. The climate is admirably adapted for the vine, and it may be expected that in a few years a prodnct of value may be snpplied for home consnmption, if not for exportation. Of the quality of the wine which had been made in Sidney, there is yet no means of judging. Mr. Busby, who wrote an account of a tonr which he made in Europe, for eollecting choiee varieties of the vine to introduce into that colony—a bnsiness which he seems to have followed out with great diligence and a patriotic spirit highly to his credit,—proves that durability, withont brandying, is one of the virtues of the New Sonth Wales produce, for he brought it to Europe and took it back to Australia, perfectly sonnd on his arrival: another proof of the idle notion that all wines must be brandied to bear a voyage, no matter how short. It is only to be feared that the soils ehosen for the vine in our eolonies may be selected too often from those which carry the rich decay of vegetable refuse, in place of sand or calcarious strata. Good dry wine is the product to be desired. The heat of our Australian territory will ripen in many places, there is no doubt, the muscadine grape for sweet wines and raisins. The difficulty will be found in getting a good sonnd palatable dry wine. The idea of a beneficial product from a rieh arable soil it is difficult to eradicate from the minds of those who have not been witnesses of the real state of the case.

Australian wines, it is gratifying to learn, have been made

so successfully as to sell in the market at Calcutta for thirty-two shillings per dozen.

In 1849 the number of acres of vines was 1127, producing 101,063 gallons of wine, and 1781 of brandy. A first consignment reached London in 1851, amounting to 255 dozen, described as "Australian Wine," and "Australian Red Hermitage."

[Symbols of the Vine.]

CHAPTER XIV.

WINES OF AFRICA AND AMERICA.

FEW AFRICAN WINES NORTH OF THE CAPE—WINES OF THE CAPE OF GOOD HOPE—IMPORTATIONS FROM SOUTH AFRICA INTO GREAT BRITAIN—CULTIVATION OF THE VINE IN AMERICA.

The continent of Africa no longer boasts through Egypt of its famed Mareotic wine; the vines once so famed are now cultivated principally for their shade, and the fruit neglected, or dried for making raisins. It does not appear that wine is made on either side of the vast peninsula of Africa, though Ethiopia yields very good grapes. On the northern coasts, at Morocco, wine is manufactured by Jews, and in Tetuan it is made nearly equal to the Spanish wine of Xeres. In different parts of the Algerine territories vines have been grown, and good red wine made by persons not Mahomedan. The visits of the locusts, however, have been found very destructive to the vines. The Mahomedan religion is an obstacle to this species of cultivation, which must be in the hands of individuals of a different faith, though in secret the faithful quaff the produce with great relish. The heat and aridity in some countries, and the excessive richness of the soil in

others, are equally prejudicial to the culture of the vine. Deserts of burning sand, and a population completely savage, occupy the middle portion of this quarter of the globe, and it is only at European settlements in the southern hemisphere that civilisation has introduced one of its greatest luxuries on any tolerable scale of extent or success.

The vineyards of the Cape of Good Hope are some of them in the vicinity of Cape Town itself, where the beauty of the climate and equality of the temperature are particularly favourable to vine cultivation. The proper choice of a site for a vineyard was seldom taken into consideration by the Dutch, who first planted vines, under the governorship of Von Riebeck, in 1650. At least, so the Dutch say, but on the revocation of the Edict of Nantes, the Dutch settled a colony of emigrant French, at Franschehoek, a secluded valley, and the residents at the Cape give them the merit of the introduction. Their descendants are still the principal vine growers. There are many places where the soil is exceedingly favourable, but these are neglected for situations which have been chosen from local convenience, the caprice, or mistaken policy of the planters. The fertility of some of the land near the first settlements was very great, and on that account the less applicable to vine culture, yet vineyards were planted in such places very early after the Dutch began to bring in the land. It is not far from Cape Town, or about half way between the Cape and Saldanha Bay, so well known to seamen, that the Constantia, both red and white, celebrated among the first class of sweet wines, is grown. Of the two, the preference is given to the red, though both are luscious, and the white is remarkably full in the mouth. Both are what the French call *vins de liqueur*, and are drunk as such. The vineyard is very small, and is divided into two parts, belonging to different proprietors, called the Higher and Lower Constantia, separated only by a hedge, and having an eastern exposure. It was named from the farm on which it stands, and the farm from the wife of the Dutch governor, Vander Stel, who formed it. The wine of both vineyards is nearly alike in quality, though the Cape connoisseurs pretend that there is a considerable difference. Formerly, when the Cape belonged to the Dutch, their East India Company always took off a third part at a

fixed price. Threescore years ago the wine sold for between two and three shillings per bottle on the spot. It lies about eight miles to the west of the town, and the produce both of the red and white does not exceed eighty or ninety pipes annually, though some have calculated it at twelve thousand gallons. The soil of the Constantia vineyard is a sandy gravel, lying upon a gentle slope. The vines are of the Spanish muscadine species, and cultivated without props; when pruned, only a small number of buds is left for bearing. The wine is pressed after the grape is freed of the stones and every extraneous substance. The casks are deposited in a cellar, where the air has a free circulation, upon a level with the ground. The price of Constantia varies from a hundred to a hundred and forty dollars the half aum of nineteen gallons. The other wines run from twelve dollars as high as seventy-six.

Stellenbosh, so called from the Dutch governor Stel, and the bushes which covered it, is a second wine district, north of False Bay, by the Stellenbosh river. Stel seized upon large portions of territory for himself with more than Dutch cupidity, and drew a great profit from the vineyards and corn-fields in that part of the colony. He constructed a reservoir in the mountains to water his farms and vineyards, which he conveyed in a channel by his wine cellars to a mill where he ground his corn. The valleys are described as being very fertile in corn and vineyards. Drakenstein, another settlement to the north-east of Stellenbosh, was settled by French refugees in 1675. In Simon's Valley, one Von Blesius planted vineyards, and, as well as Stel, seems to have turned the country into a source of private profit, until an ordinance from Holland in 1707 forbade the civil officers of the colonies to traffic for their own advantage in wine, corn, or cattle. It appears that wherever land was proper for the growth of corn, vineyards were introduced, and to this conduct the bad quality of most of the Cape wines may be ascribed. There was no care discovered in the choice of the site or soil. The beauty of the vineyards at the Cape seems to argue against their existing site and mode of culture. Two vineyards in 1722, near Cape Town, were described as the most beautiful in the world, one fourteen hundred paces long by two hundred and thirty-five, with a rivulet through the midst. The Dutch

placed high duties upon the wine sold at the Cape to strangers touching there during the infancy of the colony. Dampier speaks of the strength and sweetness of the wine in his time; but he probably alluded to the Constantia. In no wine country is there room for greater improvement, nor is there any in which care and science, properly directed, would earlier exhibit their effects. No method recommended by European science or experience prevails. The improver would have to encounter very considerable obstacles. That it would be highly beneficial to Great Britain, as well as the colony, there is no doubt. Things are undoubtedly better now than they were twenty years ago; but amendment is very slow. The obstinacy of the Dutch character is proverbial. Old habits can with difficulty be overcome in a long series of years. The boors are a very ignorant, dogged race of people, and not at all of speculative habits, but content to do, in the same mode, what their fathers did before them, and no more, contented with "the wisdom of their ancestors."

Except a soil consisting of volcanic remains, there are traces of every other species of land congenial to vine culture. There can be no doubt that were vineyards planted on the sites better adapted to their growth, and the grapes selected with due care, a vast deal of good wine might be sent from the Cape into Great Britain. The quantity of produce is now the only object kept in view by the farmer. The vines are not always propped for the common wines. It is observed already, that they never are propped for the Constantia wine, but left too frequently to grow like currant-bushes in England, and even to rest upon the ground. From this custom, perhaps, arises one cause of the earthy taste of the wine. The customary mode of doing everything as it has been done before, together with an inveterate adherence to precedent, renders it very difficult to effect the least amelioration. The Dutch farmer presses his grapes under any circumstances that will ensure quantity of product. Carelessness in training and dressing the vines also equally contributes to perpetuate the bad nature and bad character of the wine, in a country where nature is free from any share of the blame.

The wine grown at the Cape is both red and white, and the larger part is dry. They have, besides the red Constantia,

a red wine called Rota, and various wines grown at Stellenbosh, Dragenstein, and Perle. The real Cape Madeira is a boiled and mixed wine, and used to be sent to Holland, India, and America. The farmers sell their new wine to merchants at Cape Town for thirty-six dollars the leaguer of fifty gallons, which the latter retail at an advanced price, adding execrable native brandy. They also ship it off to the quickest market, rarely having capital to retain it in their own hands until it is properly matured by age. The greater part of the wine produced goes by the general name of Stein wine, some of which, when carefully prepared, and after due keeping, is really excellent when about seven years old. The absurdity of government interference exists at the Cape; tasters, inspectors, and what not, get a living upon the wine owners, mere tools of the government, for which the people are taxed. The wine is not permitted by these agents to leave the grower's hands under six months or longer at their caprice. A duty, equal in some cases to one-half the price of the wine, is laid upon that which enters Cape Town for consumption. The entire product of the vineyards of the Cape is calculated at fourteen thousand leaguers, of which the colony consumes six thousand; two are sent to St. Helena, and the rest exported, a large part to this country. From the parliamentary papers in 1817, the total quantity was then estimated at about twenty-one thousand pipes and upwards.

The importation was as follows, in tuns, from 1816 to 1820:

1816	1,631	2 21
1817	4,218	0 29
1818	3,648	0 15
1819	1,648	3 19
1820	1,925	0 60
	13,071	3 18
Of which were exported again	1,923	1 17
Total consumed in Great Britain in five years	11,148	2 1

(See also Appendix, No. XVI.)

A large proportion of Cape wine is used in England to deteriorate the growths of other countries, by making what are called cheap wines. In the six years ending with 1849, the quantity decreased from 349,257 imperial gallons in 1844, to 241,845 in 1849, as returned to January 5, 1850. It is

singular that British example has been unable to make an impression upon Dutch doggedness in the way of improvement, and that efforts, if made, have been directed as ignorantly as that of the older Dutch, with an utter disregard to later precedent. Yet tolerable wine is to be drunk at the Cape itself, from its own vineyards. Red Cape drunk of a proper age in the country is a sound, good wine. Who would believe this, from the specimens tasted in England?

The merchants at the Cape are more careful of their cellars and appurtenances than of the wine they export from them. In these they deposit the produce of their purchases from the farmer in large tuns, made of a hard dark wood, holding six or seven hundred gallons each. The bungs are kept locked down by brass plates well scoured, and only opened in presence of the owner.

The grapes were first brought to the Cape from the banks of the Rhine. The muscadine grape, as before stated, is found there, as well as other European species. The fruit is rich, full, and fine, and has none of the earthy taste found in the wine. It is therefore very probable that this taste is further aided by the stalks and stems, for the grapes are neither picked nor sorted, ripe from unripe, except for the Constantia, and what earth may cling to them all go into the vat together, the whole management being generally entrusted to emancipated slaves. The casks, too, are ill-prepared for the wine. The vintage labour takes place in February and March. The process of fermentation is ill-conducted; even the operations preceding the vintage are rude, and managed as coarsely as cider-making in Devonshire. The grossest manure is applied to the vines. It is, therefore, not wonderful that Cape wines have become depreciated in public opinion. This is the more to be lamented, because the mother country possesses no colony where a more congenial soil exists, or where better wines might be grown. The reduced duties, and extent of the home population, would secure a consumption for a superior wine, which would render the Cape in return pecuniary advantages that could not fail to be felt by the colonists. It is wonderful that English speculation, securing a few French cultivators, has not made new attempts to raise the character of these wines, of which even the worst find a market. The return would not be slow,

the capital be secure, and a little patience recover the market for any distinct well-characterised wine which might be grown. There is, however, another obstacle to be overcome in the ill-managed fiscal regulations of some of our colonies, and the arbitrary enactments of military governors ignorant of everything but regimental duty, whose will is too often the sole law by which everything in them is regulated. Until this system is abolished, and the colonists become self-governed in all things of which they have the true comprehension, little emendation is to be expected.

In America, wine is made in many places, both in the north and south continent. The wild vines on the Ohio attain an immense growth, and wine has been frequently made from the grapes they produce. Some species of wild vine are of prodigious size, their trunks being from seven to ten inches in diameter, and their branches hanging down sixty or seventy feet from the tops of the tallest trees. Certain Swiss settlers, in the states of Ohio and Indiana, have cultivated the vine with considerable advantage. The crop in 1811 was as much as twenty-seven hundred gallons, though the vineyard was only planted in 1805. The wine was said to resemble Bourdeaux in quality. Vines from Madeira and the Cape of Good Hope are found to succeed well in the soil here. Wine was known to be made twenty years ago from the native grape of America, to the value of six thousand dollars. Of these, and the wines grown near Philadelphia, the author has no means of ascertaining the quality. In several parts of Mexico good wines of the second class have been produced, as at Passo del Norte. Those of Paras, in New Biscay, equal them. Wines are also made at St. Louis de la Paz and Zalaya, of tolerable quality. Lower California has some vineyards, which give an agreeable red wine. A vineyard established on the Kentucky River, in 1798, did not meet with success, probably from the rich state of a primeval soil, owing to the excess of vegetable decomposition. The banks of American rivers must for the most part be uncongenial sites for the vine, as they flow generally through a very fertile and level country.

Wine was long ago made in Louisiana, and in the French colonies of America. In Florida a considerable quantity was produced from a native grape, resembling that of Orleans, as far back as 1564, according to the testimony of Sir John

Hawkins. Twenty hogsheads were made in one year at a particular spot, and it was well tasted, but the colony got into a dispute with the Indians, and was ruined in consequence, together with the manufacture. Laudonniére says, writing his voyage to Florida, in 1562, that the trees were environed about with vines bearing grapes, so that the number would suffice to make the place habitable.

In Mexico, where the small wild grape was indigenous, the Spaniards had introduced that of Europe as early as 1572.

"Master Ralph Lane," the head of the first colony established in Virginia, wrote to England, in 1585, that he had found in that country "grapes of suche greatnesse, yet wilde, as France, Spaine, nor Italie have no greater." This perhaps savoured a little of exaggeration. Thomas Heriot, who compiled an account of the productions of Virginia for Sir Walter Raleigh, says: "There are two kinds of grapes yielded naturally, one small and sour, of the size of those in England; the other far greater, and of a luscious sweetness."

The island of Cuba has an abundance of wild grapes, which have an acrid taste, and afford a light, cool, sharp wine. The trunks of the vines are often as thick as a man's body, and with their branches interwoven extend in thick woods over leagues of surface.

South America abounds in vineyards. Wine has been made in Paraguay long ago: it was forbidden to be manufactured in the Brazils during the sovereignty of Portugal there, lest the home-made wine should suffer detriment. Vines are grown at numerous places between Buenos Ayres and Mendoza; they are remarkably productive, and bring forth fine fruit wherever the owners have taken the necessary trouble with the cultivation. The post-houses on the road, after that of Achiras, surprise the traveller with the richness and beauty of the fruitage surrounding them. The clusters of grapes are remarkably fine and rich, and are intermingled with the pear, apple, and peach, in the most luxuriant manner, all in great perfection. A very good second-class wine is made at Mendoza, at the foot of the Andes, on the eastern side, which is an article of considerable traffic with Buenos Ayres, a thousand miles distant across the Pampas. They are transported even during the summer heats, and so far from spoiling, are found to improve by the carriage. The quantity thus sent is con-

siderable. The wine is not carried in the *odre*, or hogskin of the mother country, which so infects the otherwise sound wines there, but it is conveyed in small barrels slung on each side of a mule. Sweet wine, resembling Malaga, is made at Mendoza, to which end they suspend the grapes for some time in bunches to mature, after they are taken from the vine. On approaching Mendoza, fields of clover and vineyards greet the eye on both sides, and the gardens of the city are filled with some of the best muscadine grapes in the world, both for size and flavour. The vineyards produce black and white grapes alike; the vines are not suffered to grow above four feet high, and the vineyards are irrigated. Both red and white wines are made, the latter bearing in the United States the price of Madeira. The wines are sent in exchange for barrel staves: a plan which Old Spain had never the sagacity to imitate. Brandy is also distilled from these wines.

Peru affords delicious grapes of various kinds, principally for eating, near Lima. No wine is made near that city, from the great demand for the fruit. The vines grow in a stony and sandy soil, and are of good flavour; that called the Italian is remarkably large and delicate. The vines are regularly pruned and irrigated, and require no other attention. The culture bestowed on the vines, from which the wine imported into Lima is made, at Ica, Lucumba, Pisco, Nasca, and other places, does not differ; the vines are generally trained upon espaliers. The soils there are stony, sandy, or consist entirely of smooth flints and pebbles; not more than eighteen inches of earth anywhere covers them even in the part devoted to arable purposes. The land may, therefore, be imagined very congenial to vine culture. The trenches which still irrigate these lands are the work of the unfortunate Incas, which, amid all their blind devastation, the Spaniards had the foresight to preserve. The olive flourishes here in whole forests, and gives finer oil than in any other country.

The wines made both in Peru and Chili are white, red, and dark red. Those of Chili are thought the best, the muscadine being remarkably good. The wine of Nasca is white, and least in request, being of inferior excellence; brandy of good quality was once distilled there, and sold at Lima. The wine of Pisco sells best, and is highly es-

teemed. Callao is the great entrepôt whence the wines are re-exported to Guayaquil, Panama, and Guamanga. In Chili, though the vines produce better fruit for wine than in Peru, purchasers of the wines to a remunerating extent are wanting, and much of the vine ground lies neglected. The red grape is most cultivated, and is remarkable for richness and flavour. The muscadine far exceeds that of Spain, as well in the fruit as the wine it produces. The vines are grown on espaliers. The Chili wines were formerly sent to Lima in considerable quantities. At Cumana they were sold as low as fivepence English a bottle. The white wines were celebrated long ago in all South America. They were first made of two species of grapes which bore the names of Uba, Torrentes, and Albilla. The red wines were made of the Mollar grape, and had considerable perfume. Nothing can equal the beauty of some of the clusters of the Chilian grape. A bunch has been gathered so large as to fill a basket of itself. The trunks of some of the pollard vines are as large round as a man's body. The Spanish traders formerly presented the Caciques of Arauco with wine when they wanted to traffic, and by that means always obtained leave. In 1824 the Spaniards forbade traders to carry more wine into the Indian territories than was sufficient to treat the masters of families to a passing cup, because the inebriation of the Indians was followed by lamentable excesses.

[Wine Vessels—The Sack Cup is at Cothele, Cornwall.]

CHAPTER XV.

KEEPING WINES.

WINE COUNTRIES NOT GIVEN TO EBRIETY—ENORMOUS DUTIES IN FAVOUR OF SPIRIT—SO EXPENSIVE AN ARTICLE TO BE CAREFULLY KEPT—THE PRESERVATION, CELLARING, AND MELLOWING OF WINES.

Adam Smith, in his "Wealth of Nations," b. iv., c. iii., says: "The cheapness of wine seems to be a great cause, not of drunkenness but of sobriety. The inhabitants of the wine countries are in general the soberest people in Europe; witness the Spaniards, the Italians, and the inhabitants of the southern provinces of France." The enormous duties laid upon wine above spirit (see the Appendix) render the cheapest wine on which it is worth while to pay the duty a valuable commodity; and while it is forced to be a luxury, which, were it less so, would contribute greatly to health and sobriety, it becomes requisite to know how to preserve it from injury in the most convenient way.

The modes of making wine, so varied in detail in different countries, and yet in the general operations of expression

and fermentation the same in all, furnish much matter for reflection. The division of wines into three grand heads, of dry, sweet, and luscious, would, perhaps, be the best method of classing them, while treating of their qualities; but the terms of dry and sweet having been adopted customarily, it may be as well to follow the general rule, for the sake of simplicity, as the subdivisions from these two heads may be made to include the thicker and more luscious under the generic term of "sweet," as well as the more meagre in sugar, under that of "dry" wines.

It is singular that good wines should be made under such multifarious modes of treatment as are shown in the foregoing part of this work. The process of fermentation is carried on in many different modes, not regulated by locality or climate, and wine of excellent quality is produced under each. It seems difficult to decide which mode is to be preferred. The first requisite to make good wine seems to be a peculiar quality in the soil in which the fruit is grown, more than in the species of vine itself. Every treatment after the vintage is secondary to this. The quality in the soil which operates upon the plant, so genial in some spots, yet scanty and confined in limit, is in its precise nature unknown. The general character of the soils friendly to the vine is already familiar to the reader; but the nature of the influence possessed by one small spot in the same vineyard over another, as exhibited in the productions of several choice varieties of the vine, will, perhaps, for ever baffle the keenest spirit of inquiry.

The second requisite to good wine is the species of plant, aided by a judicious mode of training and cultivation. On the whole it appears, that, to refrain from attending to the soil at all, is better than to overwork it. Three-fourths of all vines are grown on hills, and wines of the first character are made from those that flourish among stones and pieces of rock, with little attention, more than occasionally raking the ground between them, where it is possible to do so. Hermitage was first grown among granitic rocks and stones, broken smaller by art, and little or no dressing was used; on the other hand, no wine of tolerable quality is grown on rich highly-dressed land; this may be taken as of equal truth in the north and south. It is remarkable, also, that the quan-

tity of must, afforded in different situations in all respects similar, differs much; and that, on approaching the south, the quantity rather diminishes, as if with the increase of the saccharine principle of the grape. Thus, as before seen, in the department of the Meurthe, in France, the quantity of wine per hectare is never under $50{\cdot}64\frac{1}{6}$ hectolitres. Examples of two hundred are on record: an incredible quantity. Reckoning the hectare at two acres and a half, and the hectolitre at twenty-six gallons, this amounts to upwards of twenty-two hundred gallons for the English acre. On the other hand, the produce in the Côte d'Or only averages 22·81 each hectare, and only ten or twelve for the richer wines, while the poor wines of the Seine and Oise yield $52{\cdot}13\frac{5}{8}$. The table of the relative products of the French vineyards, at the end of this volume, is curious, and will show these variations in quantity more fully. The species of plant which is a favourite in one district is discarded in another. In making the drier wines, the species seem more regulated by caprice than judgment; while, for the luscious, the rich grapes of the East are cultivated in preference, from their abounding so much in sugar.

The fermentation is carried on in troughs, vats, or casks, in all countries, covered or open, or in France with the apparatus of Gervais, to which allusion has already been made. This last mode is recommended, because the inventor supposes it retains the strength and aroma of the wine; but a far better method is adopted in *tonneaux à portes* (p. 152). (See also Appendix, No. II.) It is argued by some that the process should be as quick as possible, and by others that it should be slow, each pursuing his own method. As fermentation has been already touched upon generally, the mention of it here is rather with the intention of recalling the various modes of accomplishing it in different places than to describe the operation. Effervescing wines in Champagne are casked soon after the fermentation commences. The must is not allowed to free itself of the carbonic acid gas, nor to remain in the vat but a few hours, nor is it racked until the Christmas after the vintage. In the Ardeche, on the contrary, the wine of Argentière, designed to effervesce, remains in the vat twenty-four hours, the must is racked into large bottles, and decanted every two days, until there is no appearance of fermentation,

and then bottled, corked, and sealed. The effervescing wine of Arbois, once so celebrated, is made by suffering the must to remain from twenty-four to forty-eight hours in the vat, until a crust of the lees is formed as thick as possible before the fermentation begins. The moment gas bubbles ascend it is racked, left until a second crust is formed, racked again, and the double operation repeated until the must is limpid. It is then casked, and, until the fermentation is complete, kept full. When the fermentation ceases, the cask is bunged. It is several times racked, and once fined before the following month, when it is bottled. Here are three modes in one country of making *mousseux* wine. Nor can the best wine of the three settle the question which mode is preferable, as the growth may cause the difference in the goodness of the product. Other modes might be cited, but the preceding will exhibit to the reader, in a clear point of view, the variety of treatment to which wines are subjected, and he will find others himself, if he wishes to follow the comparison further.

Neither with red wines is there any uniform treatment. The fine Burgundies of France are managed in the simplest manner, while great labour is bestowed upon wine of very inferior character. Some wines are left but a few hours in the vat, as in the Côte d'Or; others remain, as in the Lyonnais, six or eight days or more, and at Narbonne even seventy. Nor does any difference of product prove the discrepancy between one mode of treatment and another, where the wines are good. This being the case with every class, it may reasonably be inferred, that much less of the peculiar excellency of wine attaches to its treatment after it enters the vat than is generally imagined. When the must has been judiciously placed in a state ready for fermentation, after due care had been exercised, the simplicity of all which remains to be done, and very frequently the opposite methods adopted from caprice or custom, to make it ready for the market, tend to substantiate this opinion, not to excluding improvement in numerous existing cases of management.

In treating of the cares of the wine-maker, allusion has been made to the diseases which the contents of his casks may sustain in the cellar before they go out of his hands, or are transferred to the market—in fact, while they are yet preparing for that purpose. The due care of wine in the hands of the

mercantile purchaser, or in the custody of the private individual, remains to be noticed. He who has a good cellar well filled, cannot too soon make himself acquainted with its management, and with the history of that beverage which, taken in due moderation, may be reckoned among the most precious gifts of Heaven to the temperate and rational man. He should become acquainted with the phenomena of secondary fermentation, for that process often continues insensibly for a long period after wine is in the bottle, and will affect it accordingly under varying circumstances of locality or temperature.

The chemical analysis of the ingredients in the composition of wine has already been given in the second chapter. Secondary, or "insensible fermentation," as it is called, takes place in the cellar. This fermentation, from exposure to an exciting cause, sometimes becomes acetous, and spoils the wine. To this mischief distinct allusion is necessary, in order to point out its prevalence. This it is which, if neglected, most commonly brings on the principle of decay that had until then been resisted, and which would be so longer, were the due balance and proportion of the substances in the wine correct at first, and the decomposition of the tartar and sugar perfect. Durability in the cellar can only be ensured by the change of the sugar into alcohol to such an extent as to afford the necessary resistance. Where the sugar is great in quantity, the wine is less liable to turn acid in the bottle, if the fermentation in the vat has been good. Weak wines, in which tartar is predominant and the principle of preservation feeble, are often lost irrecoverably before the owner imagines it possible. It is against this degeneration of the wine that the purchaser or consumer has more particularly to guard, as of all the accidents to which wines are liable after leaving the grower's hands, to fall into the acetous fermentation is the most common.

The description of a wine cellar of the most eligible class has already been given, to which there is little that can be added. It should, if possible, face the north, and in England consist of two divisions, one of which should be some degrees warmer than the other, for there are many wines which do best in a cellar of high temperature. Madeira, Sherry, Canary, Malaga, Syracuse, Alicant, Cyprus, and some others,

keep better in warm than in cold cellars. The wine of Portugal is so hardy, that even the cellars under the streets of the metropolis will little injure its quality; but this is not the case with other kinds. The wines of Bourdeaux, Champagne, and the Rhone, should be kept in cellars where no motion can affect them, far from the vibration, or rather trembling, of the earth, from the traffic over granite pavements. They should be as far removed from sewers and the air of courts, where trades of a bad odour are carried on, as possible. These in wet weather do not fail to affect the wine, and give a tendency to acetous fermentation. No vinegar must be kept in a wine cellar, and the temperature ought to be unchanged throughout the year.

The fermentation of wine in close cellars is very apt to affect the atmosphere around to a considerable degree, and this is an additional reason why they should be well aired. The vapours which are found in similar cases produce sometimes distressing effects upon those who encounter them. Intoxication, vertigo, vomiting, deadness of the limbs, and sleepiness, are frequently experienced, but these disappear upon returning into the fresh air, and taking repose, after swallowing an infusion of coffee, or acidulated water. There have been instances, however, in which dangerous paralysis has occurred from too long exposure to the carbonic acid gas, and even death has ensued. It is proper, therefore, always before entering a closed cellar some time shut up, and where the wine is thought to be in a state of fermentation, to halt a moment, when the peculiar odour of the gas will be perceived. A lighted candle is a good test, by the diminution or extinction of its flame. Upon first perceiving the flame to diminish in intensity, and burn fainter, it is a sufficient warning to retreat, until the cellar is purified.

The quantity of the wine in a cellar must be regulated by the rate of consumption in each class, so that too large a stock may not be kept of such as is least durable. This, in a large establishment, where a curiosity in wines is indulged, is a matter of much importance. The details, however, do not come within the scope of this volume. They are easily regulated by attending to the history of each particular wine, and the length of time since the vintage in which they were made.

Artificial heat may be introduced into cellars which hold the wines of the South, in very cold weather, with considerable advantage. This may be done by means of a chafing-dish. The cellar should be kept clean, and swept as often as convenient. In this climate a cellar should have an ante-room, and be entered through two doors, closing one before the other is opened, and keeping, by artificial means, if natural ones will not do, the same temperature throughout the winter and summer, judging by a thermometer.

The choice of wine is a very difficult task, especially for the uninitiated. The difficulty is twofold: in the first place, no two persons have the same ideas of the flavour of any particular wine; secondly, the wines of the same vineyard differ in different years. Age, care in keeping, or accident, cause a change in the flavour of the same class of wine, perceptible to an amateur, though little noticed by strangers not accustomed to the variety. A purchaser should always, if possible, choose for himself the wine which is most agreeable to his palate. There is much of pretension in the general taste for wine; and it has been asserted that oftentimes the worst judge complains first of the quality of the wine set before him. At one moment, the example of a fashionable person will make a wine held in very little estimation before, and perhaps very worthless in reality, the prime wine of the table for a season. In England, it is this fashion, or accident, and not the true regard for vinous excellence, which makes the demand considerable for any particular species.

The first object to be attained in choosing wine, next to the taste meeting the approbation of the purchaser, is its purity. Whatever be the country from whence it comes, whatever the class, if it be adulterated with anything foreign to its own growth, it ought not to be selected. To distinguish genuine wine from that which is mixed requires great experience, when the species to be judged is of a second or third-rate class. The bouquet may be imitated, and even the taste, unless long practice has habituated the purchaser to a nice discrimination. It is needful to know whether new wines will keep or change, and to what alterations the flavour will be liable. Without this knowledge, great loss may be sustained by a purchaser. Wines may appear good

and bright which will not keep a year, and others, that at first seem by no means deserving of preference, may prove in the end excellent. The private purchaser has no resource then but in the dealer of extensive connexions and high character, while the dealer himself must acquire, by long experience and nice observation, the requisite qualification.

The taste is the criterion by which a judgment is to be formed; but a taste in wine, which can be depended upon, is a rare gift. The particular impression on the sense is so liable to alteration by the state of the bodily health, or by the last substance taken into the mouth, that it is difficult to depend upon. Sweet or spiced food taken a good while before will affect the judgment. Many recommend cheese, but after that all wines have an agreeable relish, while those who are in the habit of drinking strong wines or spirits lose entirely that nicety of taste so requisite in judging of the superior product of the purest growths. A habit of tasting the superior wines will alone give the healthful palate the power of discriminating minuter differences in the aroma, bouquet, and *sève* of the choicer kinds. Such a palate judges by comparison of what ought to be found in the best growths, and the opinion is formed by an effort of memory upon previous sensation. Good wine is most frequently found among capitalists, who can afford to buy up large quantities in favourable years, the cheapest mode of purchase, who can bottle as it may be deemed most fitting for the contents of their cellars, and who have a reputation to lose. The peasants' wines on favoured spots, mentioned in a preceding chapter, do not bring a good price, because the owners have not capital enough to make them in the best manner, or keep them in stock until it is most eligible to offer them in the market. The same rule holds good with the merchant.

The higher classes of wine are transported to the purchaser with great care. The best season for removing the more delicate wines of France, and, indeed, wines of every kind, is the spring and autumn, when the weather is temperate. Cold or hot weather is equally prejudicial to the carriage of most wines. If transported in wood, they must be racked before they are removed; if in bottle, they should be decanted. Due precautions are taken to guard against

the frauds of carriers on the continent, by running plaister on the heads of the casks, and covering them entirely with hoops. The transport in cases, of the high bottled wines, is most generally adopted. These cases are strongly put together, and carefully packed, each bottle being bedded in straw, after having been previously wrapped in cartridge paper. With Champagne the case is also lined throughout, to guard as much as possible against atmospherical influence. Champagne wine sent to America is embedded in salt, so that it is kept always cool. In this mode, bedded in salt and straw in very tight and strong cases, Burgundy has been successfully transported to India. The wine should be left in the cases until the moment it is wanted for use.

Wine of strength, intended to mellow in the wood, should be put into the largest casks which can be conveniently obtained, for most wines mellow best in a large body. They should be frequently examined, and if the cellar be moist, placed upon elevated tressels, touching no part of the walls. If the cellar be too humid, new apertures should be made, or the old ones enlarged. In such cellars the barrel staves are apt to decay, and let out the wine. Old cellars are better than those newly built, for it is observed that in the last the wine does not keep so well. The loss in a humid cellar by evaporation is much smaller than in one which is dry. Aqueous, and no doubt some spirituous evaporation, by the pores of the wood, goes on while the wine is mellowing. This does not amount in a cask holding eighty gallons to more than a glass a month in a humid cellar; but in a dry one, though the casks are preserved better, the loss is frequently as much as two bottles in the same space of time.

The barrel should be placed, after the vintage, as observed in chapter the second, upon square pieces of timber, and these should rest upon traverses of a larger size, placed upon the floor three feet asunder. These traverses should not be more than five inches square, nor the uppermost pieces, on which the barrels rest, be more than three or four. The casks must be kept steady by wedges, and they must be so far forward from the wall of the cellar that the inner ends of the casks may be easily examined with a candle. Casks should never be placed upon each other when it can be avoided, as in case of accident, or for ullage, it is difficult to get the lower tier

cleared. The French call this mode of placing casks *engerber*. When cellar room is scanty, however, it is difficult to dispense with the practice.

It is agreed, that the longer the wine remains in the wood the better it gets, the uttermost term which it will bear in that state being known. Delicate and light wines should be bottled as short a time as possible, for this class gains little by remaining in that state. Strong bodied wines, on the contrary, should remain long in bottle, in which state they improve best. Bottling, though a very simple operation, requires care and regularity in the performance. The admission of air into the cask during the process of bottling is inevitable, and, if the operation be protracted, the wine, especially if it be of a very delicate or superior kind, is certain to be injured. The best plan in bottling delicate and expensive wines, which will enable them to be drawn off to the last drop in full perfection, without hurrying, or even to be drawn off slowly for drinking, is that adopted on the continent. A bottle of fine olive oil is poured into the cask, by which means acidity or mouldiness is effectually prevented. It must be the purest that can be procured. For a year's duration the wine will preserve its quality perfect. This arises from the oil covering the surface of the wine and excluding entirely all contact with the external air.

Bottles should be selected of good manufacture, and of equal diameter throughout, or they will be liable to break in the bin when piled high.* Twenty-four hours at least before they are filled, the bottles should be cleansed and rinsed. Shot should never be used, for the acid of the wine is apt to act upon such as are left jammed in the hollow of the bottom. Clean gravel is better, or a small iron chain, the links minute, and yet as loose as they can be procured. The bottles should then be reversed to drain in planks, having holes for the necks. Afterwards they should be rinsed in a little brandy, if the

* M. Collardeau of Paris invented a machine for trying the strength of French bottles. It consists of a forcing pump, with a regulator and manometre, to exhibit the pressure exerted. Bottles for Burgundy or Champagne average a resistance to internal pressure outwards equal to twelve or fifteen atmospheres. The weakest parts of a French bottle are at the junction of the neck, or at the bend in the bottom. The utmost number of bottles for Champagne that all the manufacturers can make, for the next year's bottling upon an extraordinary vintage, is 10,800,000.

wine to be bottled is weak and of small body, letting them drain as with the water, but not until quite dry. Very fine wines are injured by the brandy, and for them this process must not be used. The corks must be sound, well cut, so as to press equally on every part of the neck, and perfectly new, or they will impart a bad taste to the wine. They must be supple, or there is a chance of their breaking the bottles. Any corks with blackness, or the remains of the bark upon them, must be rejected. The corks should be driven home with a wooden mallet, the weight of which is regulated best by experience.

Bottles should be waxed, or rather stopped with a composition. It is the custom among many wine merchants merely to seal over the tops of the corks. This is not enough; the glass should be included, to prevent any air passing between that and the cork. In France, for every three hundred bottles two pounds eight ounces of rosin are mixed with half that quantity of Burgundy-pitch, and a quarter of a pound of yellow wax, adding a small portion of red mastic; these are melted together, and taken off the fire when the froth rises, then stirred and placed on again until the mass is well combined. In some places tallow, in a smaller quantity, is substituted for the wax, for, if there be too much, the substance will not harden sufficiently; and if neither wax nor tallow are employed, it will be too dry and brittle. The corks, and a quarter of a inch of the bottle-necks, are dipped in this substance while it is hot, and then set by to cool.

When the bottles are corked and waxed they should be placed in a perfectly horizontal position, so that the cork be always in contact with the liquid. The soil on which the bottles lie should be first beaten very firm. Laths may be placed between each tier of bottles, and a bed of clean sand should lie in the interstices of each tier, and cover the bottles; for sand, though not commonly adopted, has great advantages. Piles, a yard in height, the ends of the piles confined by wooden posts, are a better situation than when the bottles are placed touching the cellar walls, or in bins.

The rich wines *de liqueur*, such as Malaga, Syracuse, Alicant, and the like, may be placed on their ends; but the dry wines must be arranged in the horizontal position. Upon the lowest tier of bottles the whole pile naturally depends,

and these should be very well placed. The necks of this range of bottles should be supported either by laths, or by embedding them in the soil of the cellar. The lowest range of bottles should be about fifteen lines asunder, having a bit of thin cork between. By this means the upper ranges will be certain to come within the allotted space, as there may be some small difference in the size of a bottle or two. The laths used must be thicker than common, if the pile be more than from three to five feet high. The preferable mode is to have vertical supporters placed at the distance allotted for the ends of the piles, by which means they may be reared in the middle of the cellar, which, as already observed, is preferable to the common mode against the walls, when room will admit of it.

The wines are now left to ameliorate, according to their various qualities, a greater or less space of time. Yet thus excluded from external impressions, as it might be imagined, they are subject to decomposition—whether by the evaporation of their alcohol, or of some other constituent principle, it is not easy to ascertain. Those wines in which the saccharine principle exists in abundance, or where it has formed a strong-bodied wine, are much less liable to change compared with the more delicate classes, unless from some previous mismanagement. That in bottles, stopped in the most careful way, in fact sealed hermetically, wine is still subject to the action of external causes, though some of them are trifling in their nature, is an admitted fact. It is during the secondary fermentation, and the consequent deposition, that wines are apt to become acid in the wood, and what is called the insensible fermentation in the bottle is a state in which it has the same tendency. If the fermentation be once perfected, and the tartarous and saccharine principles be completely developed, the wine being supposed to possess the just balance, it will be proof against change from any common cause for a long period of time, as may be supposed the case with hock, already mentioned in another chapter. Where the sugar predominates, alcohol sufficient is produced to ensure durability; but neither of these contingencies, it is probable, accompanies the cellaring of the finer and more delicate wines, which will not keep at most more than twenty years. It is in vain that the impurities are cleared away by

racking; the cause of the evil still remains, perhaps, in the very delicacy itself.

The precipitation of wine in bottle is only the continuance of that which began in the vat, and keeping this in mind, the remedy is apparent. All wines deposit in this their last state of preservation, from the coarse crust of port to the *depôt pierre* of Champagne, or the almost invisible sediment in some other wines. These consist of tartar, colouring matter, and in white wines supertartrate of potash. Some substances are observed in particular wines, which have too much levity to sink, and always remain in suspension while the wine is acquiring age. This substance burned is found to be pure potash. The same wine will often deposit under two different forms in the same bottle. In Champagne, what is called the *depôt pierre* is like very fine sand or small flinty crystals, but it is nothing more than an appearance put on by the crystallised tartar of the wine. This substance is found in every vinous precipitation, in some form or another, more or less apparent. Those wines which deposit freely are observed to be the most durable. Wines which deposit much should be decanted into fresh bottles in case of removal, or the deposit may ascend and injure the wine.

When wines in wood are observed to ferment about the time of the equinoxes, they exert a great force upon those barrel staves which have decayed more rapidly than common, from being attacked with a species of dry rot, which generally begins in the wood nearest the cellar walls. The casks burst, and the wine is lost, unless the decay is observed early, and the wine drawn off, for which purpose the casks should be frequently visited and narrowly inspected, for the staves will quickly become so rotten in particular places as to yield before the finger. The French call these accidents, or rather the attacks of the rot, *coups de feu*.

The casks should be filled monthly, to make up for the loss by evaporation, or mouldiness will cover the surface of the wine and spoil it. Racking should be performed in the most careful manner, so as not to agitate the wine more than can possibly be avoided; and for this purpose, in the more delicate wines, a tube should be used, to prevent as much as possible all contact with the atmosphere. When the wine is labouring under any of the accidents while in the cellar

which are enumerated in the chapter on the vintage, recourse must be had to the same remedies laid down there.

It is evident that the preservation and amelioration of wine in the bottle depend upon its maturity in the wood, and upon the utmost possible freedom from all substances it may hold in suspension while so situated. The time for this operation differs with the character of the wine. The first class of the more delicate Burgundies should be bottled at the end of a year after the vintage, while the more generous and higher-coloured should remain in wood four or five years, such as Pomard, Vosnes, or Chambertin; Bourdeaux may mellow in wood for ten years. White wines may be bottled for the most part earlier than red, and so may the muscadines. The Rhine wines may remain in wood for many years; so may most of the southern dry wines; the effervescent wines, on the other hand, require to be bottled early. A clear, dry, cool atmosphere, with a northerly wind, after a racking within the preceding six or eight months, so that perfect limpidity can be obtained, is the best time for putting any wine in bottle. The early part of the month of March is the time of the year preferable to every other.

A great object in the preservation of wines in the cellar is to keep the bouquet as long as possible, with that agreeable aroma which marks the highest class of wines, rarely met with save in those of France. This is the characteristic of the fine wines, and in some degree of all wines of the first quality which are pure, though in the secondary sorts it is less perceptible. Wines lose their bouquet by being kept too long. There is always a middle age, a maturity of years, so to speak, equally removed from the extremes of youth and senility, in which the finer wines should, if possible, be drunk. When they lose anything of their virtues or good qualities, it is certain that this maturity is past, although the wine may keep good for a long while, perhaps for many future years. It is an error, caught up from the notion that old axioms are indiscriminately correct,—it is an error to suppose that the wine which will keep long should only be drunk when it will keep no longer. Mere age is no criterion of the excellence of wine, though a certain age is necessary to carry it to the state when it is best for the table. Wines differ in the quality of endurance, and proportionably in the time requisite for improve-

ment. Burgundy of the first class, it is an acknowledged fact, will support itself to twenty years, but after twelve or fourteen it does not in the least improve; and the third year in bottle, or the sixth from the vintage, is the time when it is most perfect in every good quality for which the wine is famed. Good Champagne, on the contrary, will often be found to improve for ten or fifteen years, and will support itself until thirty, and sometimes until it is forty years old The best age for the use of this wine is about twelve years. On the other hand, hock is in full perfection when it is forty years old, and it will keep well four times that term. The red wines of Roussillon, though kept fifteen years in wood till they acquire a golden tinge, are then bottled, and kept seven years longer, and after that continue to deposit. These wines keep well for a century and a half. The luscious wines keep long, and the dry wines of the South, Sherry, Canary, and others of similar class, endure for a long term. But this endurance is in no case a proof that wine, at the extreme point of its durability, is in the highest perfection; for, on the contrary, the term age can only be rationally used when intended to comprehend the fitness of wine for drinking, and to describe that which is arrived at maturity, as the word "new" might explain wine not yet arrived at the full development of its qualities for use. Many wines, which keep well to a great age, lose some of their vinous qualities notwithstanding. Port wine, when it is old, retains but a very small proportion of its vinosity. Time is requisite to destroy the fiery mixture with which it is adulterated, or the potency of the brandy; but before that moment arrives, the vinous characteristics are generally gone. Tawny port may be very good, and well-mellowed brandy-wine, but it ceases to possess the original qualities of the juice of the Oporto grape. It is important that this should be borne in mind. It will render the very small quantity of first-class port wine which comes to England more valuable, as this alone can be drunk nearest the vinous state.

The characteristic bouquet of the finest and best wines cannot be transferred, because the delicacy cannot be imitated, and they accompany each other. They are unrivalled in their nature. When we take them we drink "the very blood of the earth," as Alexander the Great said to Andro-

cydes. A taste may easily be imparted to wine by artificial means, but this cannot deceive the palate well acquainted with what is genuine. Age softens what the French call the *sève* of the finer wines, or their spirituous aroma, but it is often fatal to the bouquet. To preserve both perfect, the best method is to take care that the casks are kept well filled with wine of the same vineyard and quality, to bottle it at the exact time, and only to remove it for the table. The finer wines will not bear any mixture, and the barrels should be kept filled, by putting in pebbles well washed and dried in the sun, rather than by the introduction of any different species of wine, or any but that of the same vineyard, and spot of the vineyard to which the growth belongs.

The French allow no dry wines of the first class to be grown out of their own country, and it is difficult to substantiate either a charge of vanity or error against them on this account. All other dry wines but their own prime growths they rank in the second class, and this rule has been observed in the list of wines in the sequel, with the exception that the highest class of hock and amontillado sherry, on account of their delicacy, and not bearing any intermixture, seem as well entitled to that rank.

The mixture of wines not of the finest class, which last will not bear it, taking place while they are in the hands of the grower, and mingled in fermentation, must not be confounded with that which is practised with the view of adulteration, treated of in a subsequent chapter. A weak wine, the product of a bad year, is mingled with a more generous growth, and respectable growers always state the fact to the purchaser, the object not being to cheat the latter by the imposition of a false growth, but to render agreeable a wine which would otherwise be found feeble or too sharp for the palate. New wine of a high colour, though of a good growth, is not agreeable to the taste, and in bad seasons possesses frequently an earthy taint, but mingled with old wine it becomes excellent when duly mellowed. Sometimes the wine of one year is mingled with that which follows, if one crop has been deficient in body. White wines, which have contracted a yellow tinge, are frequently poured over the lees of red, or are mingled with a deep-coloured red, to lighten it; but such wine cannot be bottled for some time afterwards.

The wine thus treated is found to be ameliorated when judgment is shown in the proportion of each kind which is used. The wines of Torins, in Burgundy, according to a distinguished French writer on the subject, when mingled with Romanèche or Chénas, keep longer, and are better drinking than when kept separate. The price of both kinds of wine is the same, and the only object is to obtain by the mixture a better article. Thus the use of what the French call *vins râpes* is unobjectionable, being only boiled wines to deepen colour, made for the purpose. Champagne is mingled with its neighbouring growths to prevent too great an effervescence, which frequently happens when the wine is bottled from one vineyard. This mingling takes place generally for the purpose of improving the wine, and consisting of no foreign or adventitious mixtures, may be regarded as perfectly legitimate. The mixture of the Moguer wines with the second class of sherries in Spain, to lower them to cheap sherries, is legitimate. These mixtures are avowed, and the price of the wine lowered accordingly. Brandy and syrup of raisins are mingled with the wines of France to please the foreign palate, but never for home consumption. Such is the *travaillage à l'Anglaise* at Bourdeaux with the wines for England; the quantity of spirit of wine added to the very purest and best kind is about six per cent. But Spanish wine, or the Rhone growths, are mingled also, because the standard of taste, as respects red wine in England, is formed upon the wines of Portugal, which are full-bodied.

It is from the habit of drinking so much brandied wine that the English palate, except among the more fashionable classes of society, so little relishes the virtues of pure wine of any kind, but particularly of those most delicate and *recherché*. The effects of these wines upon the feelings are as different from those of port or the heavier wines as possible. Bourdeaux, Hock, Burgundy, and similar growths, cheer and exhilarate almost insensibly, whilst there is a pleasant ease in the cheerfulness arising from their use—a buoyancy which it is in vain to look for in the spirituous heavy wines, which seem to force on a boisterous artificial mirth, a joy that is like the laugh of unwieldiness or decrepitude, without levity and that airy feeling which the other kinds always induce. Their effects on the constitution, too, are diametrically opposite

when taken largely. All wine which is mingled loses entirely the perfume and fineness of that which is pure, though it may, notwithstanding, be of a very good healthy quality, when the mixture is of no other kind than that alluded to already, consisting of sound wine alone. With the individual who is in the habit of drinking only the prime growths at the proper age, no mixture in imitation of them can go off; it can only impose upon the ignorant.

There is something exceedingly susceptible in the nature of the finer wines. Thunder, the rolling of heavy bodies over the cellar, and some things scarcely credible, are said to occasion the renewal of the fermentation. That other matters in a fermenting state should affect the wines by affinity, whether in cask or bottle, may be credited upon the weight of testimony existing in proof; but that the presence of workmen or persons in cellars afflicted with particular disorders, should bring on acetous fermentation, as well as carry wines already in that state into one of putrid decomposition, is almost incredible. Yet such is averred to be the fact, and the presence of individuals in such a state of ailment, is said, on the authority of French authors of experience, to be indicated promptly by the wine, particularly in the spring and autumn, and even when the wine is fermenting in the vat. The fermentation of the wine in the cellar is perceptible by a peculiar odour throughout, familiar to persons of experience, by the force with which it is projected when a cask is opened, and by a species of glutinous mushroomy substance formed round the bung, and any other porous part of the cask. A hole should be bored with a gimlet in the bung, and stopped with a peg, to ascertain from time to time the state of the liquid. If the latter be projected with force through the opening, it must be enlarged, that the carbonic gas may escape, and not burst the cask. Sulphur should be burned in the cellar, or the wine drawn off into a barrel which has been sulphured; but care must be taken not to do it so as to impart a taste to the wine, by seeing that the barrel is perfectly dry before the sulphur is burned. During this secondary fermentation a slight taste of acid is perceptible in the wine, which is evidently not the acetous fermentation, but only the production of carbonic acid. To this secondary fermentation, young wines which still contain

some of the saccharine principle remaining convertible, are liable, and it is not at all injurious. Where this is not the case, as in old wine, the process must be stopped at all hazards by sulphur or cold, and the wine racked, to prevent its degenerating into vinegar. Old wine should be kept as far removed as possible from new, and sulphur matches should frequently be burned near the casks of the older wine to purify the air, and repress any tendency to ferment. The sweet or luscious wines disposed to ferment should be racked into fresh casks, in which a third part of a quart of brandy has been previously burned. Spirit of wine would be still better, and might supersede the use of sulphur, taking care, in the case of dry wines, to lessen it to one-half the quantity.

Champagne is a wine which requires attention in keeping. The bottles should be carefully laid on laths, or in sand, in a cool cellar where air is admitted, and never be placed on their bottoms, as from this cause they will very speedily lose their effervescence. When once placed they should not be touched, but for removal to the table. If they are left in the cases the mark of the upper side should be carefully attended to. The effervescing Sillery is sometimes apt to effervesce after carriage, or on being placed in bad cellars. The bottles should in that case be placed on their bottoms for some time, and, before drinking, the wine should be kept an hour in ice. The most esteemed of the effervescing wines is the *vin crémant d'Ay*, which is the least frothy and the fullest bodied. The best Champagne in the best year has a slight tinge of the rose colour, which is one proof of its being of excellent quality. The deposit in Champagne, already mentioned in these pages, is not the only one to which the wine is liable. While the *depôt pierre* is considered a proof of the goodness of the wine, a black or yellow deposit, which will on motion float in the liquid, is a bad symptom, and shows that the wine is deteriorating fast. Deep cellars are best for Champagne, and as little variation of temperature as possible. The older it gets the less liable it is to be attacked by changes to its disadvantage ; and the better this wine is, the more it is liable to accident from heat, cold, or bad cellars ; it will, however, in most cases, very soon recover itself. The wines of France generally require the same kind of

cellar as Champagne. It has been already remarked that the wines of the South should be kept in such as are of a warmer temperature.

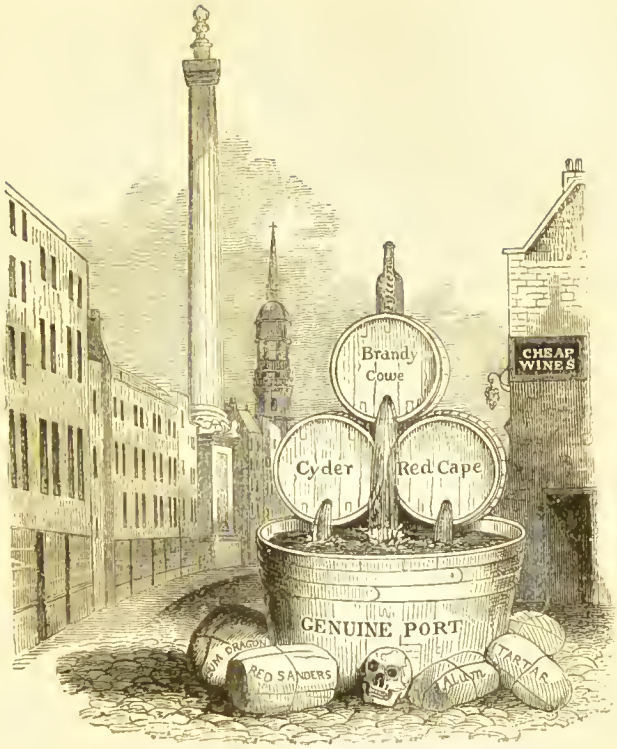
Claret, which is Bourdeaux worked up with other wines, as already stated, is very apt to exhibit its artificial composition in the cellar by changing its original colour. When this wine is not fine it should be racked over its own lees, agitated, and then treated as usual; by this means the evil will be removed. Claret is thought to drink best about ten years old.

The amelioration of wines in the cellar by age is not by any means clearly understood. Wines deposit both in wood and bottle, until they become pale, *rancio*, or tawny. Port wine, at first harsh and hot, is best judged by occasional trials. This wine should be suffered to deposit nearly all its impurities in the wood, besides getting rid of its brandy. The bottle deposit, too often exhibited as a convincing proof of vinous excellence, really means little. It might be supposed that the spirit evaporated, because that which was at first so spirituous, when it gets old, loses its strength in a great degree, and becomes more agreeable to the palate, though at the expense of its vinosity. Yet, in other instances, it may be conjectured that not the spirituous, but the aqueous part of the wine evaporates. M. Von Soemmering, after some experiments directed to ascertain if possible the actual truth, recommends that wine should be kept in glass vessels having their orifices closed with bladder. He asserts it ameliorates much quicker by that mode of treatment, and he took great pains to ascertain the fact. He found that water escaped through dried bladder, but that the spirituous portion of the wine did not do so with equal facility. He, therefore, prefers glass to wood, in every state of amelioration; and, covered with bladder, he asserts that wine will mellow more in twelve months in glass than in the cask in twelve years. There is also the advantage of saving the wine lost in the wood by evaporation, the dispensing with ullage, and the preservation of the taste and colour. It was remarked, that the shallower the glass vessel, and the wider the orifice, the sooner the amelioration was perfected.

The experiences of the inhabitants of the countries in which

each particular species of wine is grown, furnish, whenever they can be obtained, some of the best hints for the future management of the wine when it has quitted the grower's hands. Wines of a delicate character are treated abroad with a care in private cellars which is seldom bestowed upon them in England. The treatment of port, and the cellarage altogether, are not the model for keeping pure and delicate wines, that receive detriment from heat and cold, putrid effluvia, the presence of vegetable matter, and the shaking of street vaults from the rolling of carriages.

Spirituous Madeira wines are ameliorated by heat and agitation. The bottle perfects the fermentation, but whether alone, by the evaporation which takes place, is a difficult question to answer, whatever has been said about it. Wine has been placed in a bottle with a glass stopper, and found to have acquired mellowness from age, where there seems ground to believe no evaporation could happen, except through the pores of the glass. In such a case it is conjectured by some to be matter of proof, that the mellowness of wine arises from a change in its constituent principles, and a blending together of them more intimately. An insensible change in some of these principles may be effected by time and contact alone; the change in the colour of old wines proves there is ground for this supposition, and as many wines become more mature in large vessels, in which the pressure must be greater than in small ones, the mellowness is thus hastened. At all events, if the latter supposition be groundless, it can but take its rank with other conjectures on the same subject, towards fixing the certainty of which not a fractional portion of truth seems to be yet established.



[Genuine Wine Manufactory.]

CHAPTER XVI.

ON THE ADULTERATION AND SOPHISTICATION OF WINES.

PREVALENCE OF ADULTERATION—OF BRANDY, AND ITS USES—MIXED WINES FORBIDDEN ANCIENTLY—INCREASE OF SPIRIT CONSUMPTION—VARIOUS MODES OF SOPHISTICATING WINE—OF MAKING OR ADULTERATING PORT AND CLARET—OBSERVATIONS.

The spirit of traffic, which attracts to our doors the luxuries of the earth, rarely limits its aim to legitimate profit. As in war all stratagems are lawful, so in trade the desire of gain wearies imagination with contrivances for turning to account every substance of which money can be made. To be over-scrupulous about the mode would argue tardiness in the pursuit of an object, to which every generous feeling of life must be sacrificed if it intervene, and to gain which, honesty is

only the best policy when knavery is insecure from discovery. As an article of commerce finds a larger consumption, and the cost is increased by an extravagant taxation of two or three hundred per cent., the temptation to defraud is greater because the profits are proportionably enhanced. The adulteration of wine, among that of other articles, has of late become almost a scientific pursuit. The clumsy attempts at wine brewing made a century ago, would now be scorned by an adept. It is said that when George the Fourth was in the "high and palmy" days of his early dissipation, he possessed a very small quantity of remarkably choice and scarce wine. The gentlemen of his suite, whose taste in wine was hardly second to their master's, finding it had not been demanded, thought it was forgotten, and, relishing its virtues, exhausted it almost to the last bottle, when they were surprised by the unexpected command that the wine should be forthcoming at an entertainment on the following day. Consternation was visible on their faces; a hope of escaping discovery hardly existed, when one of them, as a last resource, went off in haste to a noted wine brewer in the city numbered among his acquaintance, and related his dilemma. "Have you any of the wine left for a specimen?" said the adept. "Oh yes, there are a couple of bottles." "Well, then, send me one, and I will forward the necessary quantity in time, only tell me the latest moment it can be received, for it must be drunk immediately." The wine was sent, the deception answered; the princely hilarity was disturbed by no discovery of the fictitious potation, and the manufacturer was thought a very clever fellow by his friends. What would Sir Richard Steele have said to so neat an imitation, when in his day he complains that similar fabrications were coarsely managed with sloe juice: the science of adulteration must then have been in its infancy.

It is to be lamented that adulterations of such wines as port and sherry may be so easily practised as to deceive very experienced tastes, owing to their spirituous strength. Any attempt to fabricate Romanée Conti would not thus easily answer, because the fineness, delicacy, and perfume of the wine are not to be copied. Much of the Oporto wine in the British market being of inferior quality, is peculiarly subject to imitation. The ignorance of many persons of the true

taste of Champagne has of late caused the importation of a wretched and cheap manufacture from the continent, which is sold for the genuine article; but still larger quantities of a fictitious wine, under the same name, have been made here of common ingredients, and passed off at public places. Balls, races, masquerades, and crowded public dinners, are profitable markets for adulterated wines, and the practice is not confined to the metropolis.

By the adulteration of wine is not to be understood the mixture of two genuine growths for the sake of improvement already noticed, but, in the first place, a clandestine amalgamation of an inferior kind of wine with one which is superior, to cheat the purchaser, by passing it off for what it is not; and secondly, what may be denominated with more propriety the product of fictitious operations passed off as genuine growths, having little or no grape juice in its composition. The first of these heads may be divided into adulterations of wines before and after they are imported.

Wines adulterated abroad are generally so operated upon in the cellars of the exporter, and but seldom in those of the grower, who, when he has disposed of them to the wholesale dealer, ceases to have an interest in their fate; the dealer generally knowing how to take care that no imposition is practised upon himself. There may be instances in which the grower and the dealer have an understanding or interest together; but this is not commonly the case. By the practice of mingling wines in the ports of wine countries for the English market, a facility is given for adulterating wine which comes to England beyond that which is sent elsewhere, because a taste accustomed to a pure wine is much less liable to be deceived than one habituated to mixtures. The Dutch import most of their wines pure on the lees, and thereby show their wisdom. The northern nations of Europe generally drink them in the same state as they are drunk in the lands of their growth; some of the German provinces alone excepted. For England, however, no wine will do without brandy, and the delicious sherries of Spain, which are of a quality sufficiently spirituous by nature, and come over as pure as any wines to this country, must be strengthened for British consumption. The wines of Spain, are, however, no other way deteriorated abroad, and a good price will always

procure good wine. Low priced sherries come over without concealment for what they are, and with what is done in England the foreigner has no concern. In England, sherry of the brown kind, and of low price, when imported, is mingled with Cape wine and cheap brandy, the washings of brandy-casks, sugar-candy, bitter almonds, and similar preparations. The colour, if too great for pale sherry, is taken out by the addition of a small quantity of lamb's blood, and it is then passed off for the best sherry by one class of wine sellers and advertisers. The softness of good sherry is closely imitated. Gum benzoin is used to produce the counterfeit brown sherry, which in the real wine is given by boiled must. The whole is tempered in a large vat, and sold out in bottles of fifteen to the dozen, on which a profit is oftentimes made of twelve shillings upon every dozen impudently sold as genuine pale sherry.

Dr. Paris has made some ingenious observations, the result of experiment, upon the alcoholic principle in wine. If alcohol or brandy be mingled with water, in the proportion of one-fourth of spirit to a quart, this gives half a pint of pure brandy. The effect of such a combination, taken frequently, it is easy to comprehend, when applied to the stomach. The same quantity of alcohol, however, contained in a quart of wine, formed and combined with it in the natural process of fermentation, is by no means so intoxicating, or prejudicial to the constitution. With the natural wine it is moderated in its effects, so as to exert much less power upon the stomach, and by consequence, is not injurious, except in too large potations. That this is correct there can be little doubt, from the test of daily experience. In England, the natural alcohol of the wine is not deemed sufficient. Wine, often containing much brandy naturally, is strengthened by the artificial mixture of an enormous quantity which is raw, and which never combines in the natural way with the wine itself, notwithstanding the practice of "fretting in" by the maker. To this adulteration the injurious effects of mixed wines on the constitution are mainly attributable. How this difference between combined and uncombined alcohol happens, baffles the research of science to explain, but it is sufficient to know that such is the incontrovertible fact. It must be admitted that the

alcohol in wine is that constituent portion which diminishes greatly in strength by evaporation, and naturally combines with the wine less than when artificially introduced. Nor have the experiments as to the quantity of spirit in wine been yet very satisfactory.

But the foregoing absurd and injurious practice is not alone followed by bad consequences to the constitution of the unwary individual who drinks in years of suffering with the cup of momentary conviviality, it further renders the whole community liable to imposition respecting all wines, from depriving it of power to judge between pure wine and that which is deteriorated, and from making impure wine the standard of the general taste. It has already been stated, that to drink tawny port is to drink a wine after its vinous properties are destroyed by the process necessary to kill the spirit with which it is saturated; that spirit by time evaporating too, after all the principles of good wine have long been gone.

In the more delicate wines, by the admixture of brandy, the aroma and perfume perish, together with that peculiar freshness which renders pure wine so estimable beyond every other potable. In England, among common wine drinkers, it is the alcohol of the wine alone that gives a momentary elevation to the spirits, not at all different in its nature from that which brandy mingled with water will afford, and reacting heavily. The exhilaration from pure wine is of a very different character, either from the mode in which the spirituous strength is applied to the stomach, and affects the nervous system, or from its combination with other elements. In the one case, as in Champagne, where it is true the carbonic acid gas may be supposed to produce the modification, though in the finer wines of France, as Romanée or Lafitte, it is the same thing, the spirits are elevated, and even a slight excess in the quantity taken passes away speedily, nor leaves any ill effect. In wine mingled with brandy, the exhilaration is the first access of a fever, and the head and stomach suffer severely for the indulgence, not to comment upon the certain ruin to the constitution of the individual who follows the constant use of such wines, without taking them to excess, in the shape of indigestion, and ultimately of apoplexy or dropsy. Brandied and adulterated wines are

the bane of Englishmen, though the ill effects may be slower in some cases than others; while, in like manner, diseases may not be so obvious that really owe their origin to them. The wish is patriotic and humane, that Englishmen could drink only wine pure and unsophisticated. That an abuse of the good things which the Creator has bestowed for the enjoyment of man, should be followed by just punishment in the miserable consequences that succeed excessive indulgence, is just and natural. The intemperate man, in the vinous product preferred in England at present, will find his reward; but it is singular enough, that in proportion as drunkards have abounded in any nation, the wines drunk there have been more sophisticated, and strengthened with substances foreign to them. The healthy stomach relishes plain food; the sickly one must be pampered with savoury or spiced dishes. The truth of this is clear; we have the "mixed wine" of the Hebrews in proof. Like the taste too general in England, from which the better classes and people of information are most exempt, "strong drink" is that which is most desired. Pure wine is chill to the arid and burning stomach. The Jews knew nothing of the product of the still, and strengthened and mixed their wines with stimulating and intoxicating herbs. The denunciations in the Scripture are against mixed wine: "They that go to seek *mixed wine*."—"Woe to them that are mighty to drink, and men of strength to *mingle strong drink*:" (*shekhar* שכר). The Greeks and Romans rendered wine more intoxicating by the use of strong aromatics. Turpentine, resin, and pitch were mingled with them for this purpose. Distillation being unknown, spices or hot peppery substances, as our East Indian countrymen sometimes practise now, were had recourse to in certain countries. The very use of these adulterations shows that the stomachs which relished them had either first been debauched and debilitated by excess, or that health and social cheerfulness were not objects in the vinous draught, but that a stimulant, operating rapidly and producing ebriety with speed, was the real thing sought after. In the West Indies formerly, when a stomach was well-nigh worn out, the acceptable stimulant, taken as a cordial, was a glass of brandy, with Cayenne pepper in it, usually termed "a flash of lightning." That to the gene-

rality of the nations of the North, accustomed to drink quantities that would be instant death to those not inured to them, of the burning product of high distillation, the generous soul-enlivening juice of the vine, in its pure state, should be cold and inert as spring-water, is not a subject for marvel. Pure wine was not made for men who can drink two or three bottles of brandied wine at a sitting. Burgundy, or Château Margaux, to such palates would be spring-water. If they drink wine at all, it must be adulterated with alcohol; yet the northern fondness for strong drink does not prevent all the nations of the North from relishing natural wine. In Sweden, where ardent spirits are much drunk, wine is enjoyed unadulterated, in its genuine state; and even in Petersburg, where the strongest product of the still is consumed, people drink wine in its pure state.

The consumption of wine in this country has not increased with the increase of population, while that of spirits is enormous. The following will show the lamentable increase of spirit distillation in 1830, for home consumption only, in England, Scotland, and Ireland. (See more of this in the Appendix.)

Population.	Wine, 1831.	Spirits, Home Made, 1831.	Spirits, Foreign.	Colonial.	Total Spirits.
	Imp. Gals.				
13,889,675	6,928,466	7,732,101	1,267,397	3,503,141	12,502,639
2,365,930		6,007,631	38,967	137,806	6,184,404
7,500,000	795,909	9,004,539	10,406	18,011	9,032,956
23,755,605	7,724,375	22,744,271	1,316,770	3,658,958	27,719,999

Thus the inhabitants of the United Kingdom swallow above a quart of wine a head, man, woman, and child, and more than a gallon of spirits annually, to say nothing of oceans of malt liquor, beside home-made wines, cider, and perry. As the fondness for spirit increases, that for wine diminishes. The cuticle on the hand of a blacksmith is hardened by the hot iron, and cannot distinguish objects by the sense of feeling; in the same manner the stomach of the spirit-drinker is lost to the healthy freshness of wine, being too cold and unseasoned for his seared stomach, while

adulterations or coarse mixtures of the grape remain undiscovered.

It is, after all, a very indifferent compliment to good taste, that in a consumption of 6,628,496 imperial gallons of wines, consumed in England in 1830, even Canary, Fayal, and Sicilian, made 5·54 per cent., Cape 8·14, but French only 5 per cent. of the whole. Rhenish made but 1; Madeira, 3·44; Spanish, 32·63; while Port was 44·25! out of 100 parts. The least vinous and coarsest in taste, but most potent in spirit, was, as usual, preferred; for not more than one-fifth of the port wine imported can be considered of the better quality. It is something, however, to find, that in 1833 the port had fallen to 43·85, and the Spanish had risen to 35: it is to be lamented, on the other hand, that the French had fallen from 5 to 3·81.

In the better Bourdeaux wines, even "when prepared" for the English market, the fine qualities of the pure wine still exist, though they are to be less strongly traced. In the wines of Portugal they cannot be traced at all. Indeed, so coarse are three-fourths of the wines commonly drunk in England, from the foregoing cause principally, operating as a disguise for the vilest imitations, that they might easily be made without the juice of the grape forming a part in the composition. A person named Legrand proposed to give wine, and even vinegar, not from the grape, the same apparent qualities as if they had been, by means of tartaric, citric, and oxalic acids, introduced into the wash or liquors during or after fermentation. The acids also to be mixed with spirituous liquors, for the purpose of converting them by acidification into vinegar, or by distillation into brandy; the vegetable acids to be employed to increase the strength of vinegars, and imitate those made from wine. This idea is crude enough, but the intention is not the less dishonest. If by such combinations perfect wine could be made, then have we arrived at the mystery of uniting substances which possess chemical affinity, while we had hitherto discovered only the secret of analysation—a union which nature had sealed until now in darkness. If it be possible to make perfect wine this way, why not embody the diamond from carbon, or, triumphing over the ancient alchemists, fill our coffers with gold of our own fabrication? It is not worth

paying so much money for wine, if it be deficient in all which gives wine the first place in human luxuries, if spirit and colouring matter are productive of the same effect; if the aroma, bouquet, and liveliness of the genuine liquid are neither wanted nor valued, and heavy, dull intoxication, and the brutalising of the faculties, are preferred to a pleasant elevation of the spirits, and to the draught which enlivens without injury. It is as little detrimental to the stomach, and much more beneficial for the purse, to drink none of the juice of the grape at all, but only that beverage, quantities of which have been passed off for wine at country inns and similar places. Yet the mistake is not confined to the country parts of England, of judging wine by its potent effects rather than its vinous qualities. Why have recourse to natural wines at all, if combinations, formed out of the discoveries made by chemical analysis, will answer as well? It is as probable that tartar, spirits of wine, and other ingredients should combine, and form wine under the hand of the experimentalist, as that raw brandy should combine with fermented wine. Brandy, cider, sugar, tartaric acid, logwood, or elderberries, and alum, in proper proportions, would make a beverage not distinguishable from a vast deal of what is drunk for wine in this country, and not be more injurious. In fact, quantities of wine have been made of similar ingredients, and yet, on any one well acquainted with the pure wine, scarce as it is, the imposition could not be practised. The wines of Portugal, Spain, and Sicily, are, from the deterioration of their vinous properties by brandy, most liable to imitation; for in proportion as the true virtues of the wine remain, the difficulty of imitation is increased.

It cannot be denied that the wines of Bourdeaux, called "claret" in this country, though not adulterated like the wines of Portugal, suffer injury before they are considered fit for the English market. It has been thought necessary to give the pure Bourdeaux growths a resemblance to the wines of Portugal, in some respect, in consequence of the false taste which has been given by the use of legislated wine; thus one mischief treads upon the heels of another. Bourdeaux wines in England and in Bourdeaux scarcely resemble each other. The merchants are obliged to "work" the wines before they are shipped, or, in other words, to

mingle stronger wines with them, such as Hermitage, or Cahors, which is destructive almost wholly of the bouquet, colour, and aroma of the original wine. So much are the merchants sensible of this that they are obliged to give perfume to the wine, thus mixed, by artificial means, such as orrisroot and similar things. Raspberry brandy is sometimes employed, in minute quantities, for the same purpose, and does very well as a substitute in England, though any Frenchman conversant with the wines would instantly discover the deception. The perfume is sensibly different from that given by nature. These operations cause the clarets of England to be wines justly denominated impure, though not injurious to the constitution. There is nothing in them which does not come from the grape. It is only encouraging a coarseness of taste, which, after all, is but matter of fancy, while wholesomer wines cannot be drunk. When old, claret is apt to turn of a brick-red colour: this arises solely from mingling it with more potent wine. The cheapest Bourdeaux is continually passed off in England for fine claret. It is to be bought cheaply enough. Château Margaux may be had (so named) at 44*l.* the hogshead, and less; but it is only so named, and is really a low growth. Eighty pounds is about the price of prime Château Margaux to the merchant in London, if the wine is of a good year. It must be acknowledged that there are good wines to be had in the Gironde, upon which fashion has not set its seal, that are as well worthy of being drunk as those which are in such favour,—but this cannot justify the fraud of selling one article for another.

In the south of France, Malaga, Lacryma Christi, and Cyprus, are imitated by mingling wines of age with boiled luscious wine of a later date; but there does not appear to be in the adulteration anything but what comes from the vine, and they are therefore no more reprehensible than because they are passed off for the wine they imitate. In France the principal adulteration used is water, to increase the quantity. Cette ports and sherries designed for England are brandied.

There is much Bourdeaux of a common quality, little more than a *vin du pays*, brought over and sold as claret at seven and sixpence the bottle, worth only ninepence or tenpence in the country. The inferiority to good claret is not discovered by

those who only ask for claret to cool their port. This end it answers admirably.

Thus far belongs to the wine whilst in the custody of the foreigner, or when it is transmitted to the hands of respectable merchants in England. But there are large quantities of what is miscalled claret, manufactured in this country, for making which, as well as *improved* claret of prime character, many receipts are extant. A very inferior French wine, sold to the adulterators at a few sous a bottle, is now frequently mingled with rough cider, and coloured to resemble claret, with cochineal, turnsole, and similar matters. This is pronounced of fine quality, and sold as such in this country. Certain drugs are added as they appear to be wanted, and the medley, to which a large profit is attached from the imposition, is frequently drunk without hesitation, and without any discovery of the cheat.

New claret is made to imitate old, by uncorking and pouring a glassful out of each bottle, corking the bottles, and placing them for a short time in an oven to cool gradually; then they are filled up again, finally corked, and passed for wine nine years old. Port is put into warm water, which is urged to the boiling point, and then, as already stated, the wine is put into the cellar, and deposits a crust that looks like the growth of years. Madeira is thus artificially treated. The ancient fumarium seems to have had the same object of forcing a premature mellowness.

A vast deal might be written upon the methods adopted and ingredients used in carrying on these deceptions; the present object is only to touch upon the subject, in order to illustrate certain principles recorded in this volume; but more especially to show the reader how necessary it is to form a just judgment, and obtain a perfect acquaintance with genuine wine of every species, that he may thereby be better enabled to escape imposition.

Champagne is a wine in which adulteration is most obvious to such as are well acquainted with it in the genuine state, and it is adulterated in England with more boldness than any other. There is a very weak Champagne made in the country, which was until very lately consumed wholly on the spot, incapable of resisting decomposition for more than a year.

This certain shrewd wine-makers from England have discovered, and imported as the best Champagne. It is without the flavour or bouquet of the genuine wine; it froths or effervesces freely, but the colour is paler than that of better quality. This wine is not worth more than a few sous the bottle in the country. In England it is purchased and drunk for the genuine article by those who are only now and then introduced to wine of that name; yet the exquisite bouquet of Champagne, so different in the genuine kind from all others, is the best mode of detecting the bad sort. Some will direct attention to the effervescence, and assert, that in genuine Champagne it is marked by a peculiar kind of sparkle. This is no criterion; for carbonic acid gas alters nothing at all in quality or appearance, where the fluid may possess a very opposite flavour. The bouquet of genuine Champagne cannot be imitated. Gooseberry wine itself is often passed off for Champagne upon the inexperienced, and the full price of the genuine wine exacted. The very bottles are bought up for the purpose of filling with gooseberry wine, and are then corked to resemble Champagne. The most wretched wine that could be bought in the country at a franc a bottle is known to have been imported, sold, the wine drawn, and the bottles refilled with Champagne from the gooseberry, on which a profit of forty or fifty shillings a dozen has been made. In France, Champagne is never adulterated by the grower, who has the wine of various prices and qualities, and is interested in its reputation; he sells the inferior kinds for what they really are.

An advertiser in London of the "best Champagne," at a price at which it could hardly be purchased at Epernay, was suffered to obtain a verdict for libel against a weekly periodical some time ago,* because it exposed the deception. It was still more extraordinary that no defence was made, as it was a public duty to make one, and a hundred credible persons could have proved that the best Champagne was not to be purchased at such a rate in France. The first charge per bottle at Epernay was then from three and fourpence to three and tenpence; Sillery four and sevenpence to five shillings; carriage to the sea, freight, duty on bottles and on wine not

* The *Literary Gazette*, which might easily have reversed the tables. A verdict in favour of the trash was heedlessly given, and 50*l.* damages.

included. There are inferior wines of Champagne down to the fifth or sixth grade, the lowest and poorest of which might then be purchased of dishonest dealers, but they would only keep from a twelvemonth to eighteen months. The best Champagne was out of the question here then at the price of five shillings and sixpence.

In imitating the still Champagne, an accusation has been made against the numerous adulterators, that lead is used in the process. In France, it does not appear that lead in any form has ever been employed in altering their wines, though in Germany, a century ago, it is said to have been detected. On the 13th of March, 1824, a member of the Chamber of Deputies moved for a law to punish the practice. The motion was rejected, and very properly, because neither litharge, nor any other preparation of lead, was shown to have been used, nor was any instance cited in which it had been discovered, though an ordinance was made against its use in 1696. Wines seized in France as bad, by the council of health, and analysed, have never shown the presence of lead. From 1770 down to 1825, not one instance had occurred in the analysis of the wines which were brought to Paris of this dangerous intermixture, upon the authority of M. Cadet Gassicourt, whose duty it was to examine them. M. Jullien, by a course of experiments, proved that litharge will not deprive wine of its acidity; that it decomposes the wine if much is added to it, and, if little, the wine remains unchanged, that it is easily detected, but in no case does it alter the acidity of the wine. This able writer concludes, that tartar in some form has deceived observers. Potash, too, may have been taken for it, but in no case has it been of late years detected in France. Fixed alkali has been employed frequently to correct acidity; but it does not appear that, in France, adulterations of any other kind than the mingling of different wines is practised in a manner worthy of notice here. Water and perry seem to be the mixtures which have come mostly under the lash of the law there. A small quantity of sugarcandy and cream of tartar is sometimes added to Champagne in bad years; but the quantity is so small, it cannot be called an adulteration. In truth, the detection of adulteration in wine drunk in the country is so certain, if substances not vinous

be employed, that it may be concluded the practice is not by any means general, while those of such a nature as take place here are wholly unknown. It would not be easy to imitate cider in Hereford or Devon, so as to deceive the people who are constantly in the habit of drinking it genuine.

In England Champagne has been made from white and raw sugar, crystallised lemon or tartaric acid, water, home-made grape wine or perry, and French brandy. Cochineal or strawberries have been added to imitate the pink. Such a mixture at country balls or dinners passes off very well; but no one in the habit of drinking the genuine wine can be deceived by the imposition. The bouquet of real Champagne, which is so peculiar, it is repeated, cannot be imitated; it is a thing impossible.

Acidity in wine was formerly corrected in this country by the addition of quick lime, which soon falls to the bottom of the cask. This furnishes a clue to Falstaff's observation, that there was "lime in the sack," which was a hit at the landlord, as much as to say his wine was worth little, having its acidity thus disguised. As to the substances used by various wine doctors for flavouring wine, there seems to be no end to them. Vegetation has been exhausted, and the bowels of the earth ransacked, to supply trash for this quackery, which nothing will annihilate but the habit of drinking pure, unbrandied, unadulterated wine of the best vintages, let the wine be of the first or third class. Of this, people will soon come to see the wisdom and good sense. It may be asked, how they are to obtain it? The reply is, go or send to the country. A few families might combine to pay a trustworthy person at first to go to the wine-grower, or deal at home with a particular merchant, and pay a good price to a man of honour, whose determination it is to keep all classes of his wine from the pure offspring of the grape truly designated.

It is impossible to calculate what the loss to the public in revenue must be by the adulterations of wine in this country. The basis of most of these is Cape wine, which pays a low duty, and is consequently most conveniently useful in this transmutation of wines for purposes of luere. It can hardly be supposed, that when the population of the empire was ten,

and when it was sixteen millions, no more wine was consumed. The deficiency must not all be charged to the badness of the times, nor to the increase of the cost of port wine, which, notwithstanding the stationary character of the demand, rose in price in a very rapid manner after 1753. England took then from eleven to twelve thousand tuns; and now, when she takes on an average only two or three thousand tuns more, it is found to cost many times as much. The truth is, that a vast quantity of fictitious port is passed off in this country for that which is real, and the idea derives credit from the very considerable importations of wine which can only be used for such purposes, to which two or three-and-twenty hundred tuns of Cape, a quantity of Beni Carlos, and of Figueras wines undoubtedly contribute, to say nothing of what is made without having in its constitution a single drop of grape juice at all.

In a most useful work, professing to treat of the art of adulteration, the following mode of managing this branch of trade is well exposed.* It relates to the first class of manufactured wine in contradistinction to the second, which has none of the component parts of wine at all in its composition. It is premised that all wine manufacturers keep large vats for the object of similar fabrications. Beni Carlos wine can be purchased, including duty, for thirty-eight pounds a pipe; Figueras for forty-five; Red Cape for thirty-two; of mountain wine, to follow the author, "a small quantity may be added, if required, to soften and give an appearance of richness. Sal tartar, a portion to occasion the compound when bottled to crust firm and soon, dissolved with a proportionate quantity of gum dragon, to impart a fulness of flavour and consistency of body, and to give the whole a face. Berry-dye, a colouring matter extracted from German bilberries, and known under this name. In addition to these may be introduced brandy-cowe (the washings of brandy-casks), which costs nothing, in the proportion of about three gallons to every hundred gallons of made-up wine, in fabricating the second quality of fictitious wine. Into this may be racked as follows:—

* Wine and Spirit Adulterators Unmasked. Robins & Co., 1 vol. 12mo., 1829.

	Imp. gal.	£.	Imp. gal.	£.	s.	d.
2 Pipes of Beni Carlos . . .	230 at	38	per 115 cost	76	0	0
2 Pipes of Figueras	230	45	115	90	0	0
1½ Pipes of Red Cape	137	32	91	48	3	6
1½ Pipes of Stout Good Port . . .	165	76	115	109	0	10
1 Pipe of Common Port . . .	115	63	115	63	0	0
Mountain	20	60	105	11	8	7
Brandy-Cowe . . .	20	0	0	0	0	0
Colouring	3	0	0	0	3	1
Etceteras: 2½lbs. of Salt of Tartar and 3lbs. Gum Dragon	0	0	0	0	4	0
Extra allowance for loss by bottoms .	0	0	0	3	0	0
8 Pipes Port, 115 gal. ea. Pipe .	920 Imp. gallons.			£401	0	0

"The value of the empty pipes and hogsheads is 5*l.* 5s., and not being deducted from the amount in this example, is supposed to pay all expenses of cartage, that part of the etceteras which may not be sufficiently charged, or paid for by the water used to dissolve them, and which is sold as wine, and for any additional loss which may be sustained by the bottoms. Thus, then, we have eight pipes of superior port wine, made up according to the best and most approved plan, and which stands advertising dealers at 50*l.* per pipe of 115 imperial gallons, every expense included, and reckoned at the very outside. The wine thus made up, if drawn off in bottles of the size of sixteen to the gallon, old measure, and adding a charge of 6d. per dozen extra for corks, would cost only 16s. 9d. per dozen!"

Wines under the names of British Madeira, Port, and Sherry, are also made, the basis of which is pale malt; sugar-candy, French brandy and port wine are added in small quantities to favour the deception. So impudently and notoriously are these frauds practised, and so boldly are they avowed, that there are books published called "Publicans' Guides," and "Licensed Victuallers' Directors," in which the most infamous receipts imaginable are laid down to swindle their customers. One of these recommends port wine to be manufactured, after sulphuring a cask, with twelve gallons of strong port, six of rectified spirit, three of Cognac brandy, forty-two of fine rough cider, making sixty-three gallons, which cost about eighteen shillings a dozen. Another receipt is forty-five gallons of cider, six of brandy, eight of port-wine, two gallons of sloes stewed in two gallons of water, and the liquor pressed off. If the colour is not good, tincture of red

sanders or cudbear is directed to be added. This may be bottled in a few days, and a teaspoonful of powder of catechu being added to each, a fine crusted appearance on the bottles will follow quickly. The ends of the corks being soaked in a strong decoction of Brazil wood, and a little alum, will complete this interesting process, and give them the appearance of age. Oak bark, elder, Brazil wood, privet, beet, and turnsole, are all used in making fictitious port wine.

Wines of Madeira are in like manner adulterated, or wholly manufactured in England, which, from these devices, may justly claim the title of a universal wine country, where every species is made, if it be not grown. The wine thus manufactured is not served up at the tables of the rich, but is principally consumed by those who only drink wine occasionally, on the presence of friends. Not that the better classes of purchasers escape being imposed upon, but that they are cozened in a different manner, by giving West India Madeira an artificial flavour, and passing it off for that which is East Indian, and in consequence much dearer. The basis of the adulteration of Madeira itself is Vidonia, mingled with a little port, mountain, and Cape, sugar-candy and bitter almonds, and the colour made lighter or deepened to the proper shade, as the case may require. Even Vidonia itself is adulterated with cider, rum, and carbonate of soda, to correct acidity; sometimes a little port or mountain is added. Bucellas, in short, every species of wine that it is worth while to imitate, is adulterated or manufactured in this country with cheaper substances. Common Sicilian wine has been metamorphosed so as to pass for Tokay and Lacryma Christi; even Cape wine itself has been imitated by liquids, if possible, inferior to the genuine article.

A large quantity of bad wine is passed off in London in exchange for other goods. This opens another system of dishonesty and fraud, purchaser and seller each striving to outvie the other in trickery; the wine-seller generally, it need not be remarked, having the advantage on his side. It may be well for the government of the country to consider whether some obstacle cannot be thrown in the way of these practices by legislative enactment. The possession and use of large casks, or rather vats, absolutely necessary for the purposes of adulteration, and of little advantage to the dealer

who does not contemplate similar frauds, might certainly admit of the control of the excise officers. However, in this as in all cases, persons of good sense can take care of themselves if they will but exercise a sound discretion.

There are a variety of tests which may be applied to the more vulgar adulterations by those who do not understand chemistry. Sulphur will detect the presence of lead, turning the wine black or dark if it be present; sulphurated hydrogen gas, acidulated by muriatic acid, will detect it in a moment. Alum is detected by equal quantities of lime-water and wine being mixed and examined within sixteen hours, when, if there be no alum, crystals will be found, easily separable by filtration; a muddy deposit will be seen if there be. The presence of colouring bodies is least injurious, and may be discovered by numerous tests, such as lime-water, if beet-root has been employed, acetate of lead, bilberries, elder, or logwood. The best mode, where adulteration is suspected, is to apply to any chemist of tolerable skill, who can easily analyse the wine.

According to M. Chevalier, the following are the best wine tests for the colouring matter: potash, applied as a reagent, to ascertain the natural colour of the wine; this it changes from red to bottle or brownish-green. The change of colour produced by this agent, it must be remarked, is different in the wine of different ages. No precipitation of the colouring matter takes place when potash is applied. Acetate of lead, lime-water, muriate of tin with ammonia, and with subacetate of lead, should not be employed, because incapable of producing uniform colours with wines of natural colour only. Ammonia may be employed, the change of colour it produces not perceptibly varying. It is the same with a solution of alum, to which potash has been added, which will answer the purpose.

The best precaution against the adulteration of wines would be an act of parliament, levying a heavy penalty upon all sellers of wine, on the detection of any substance in the same that is not strictly vinous, upon an analysis made by competent persons. Such an enactment exists in Paris, and it might be introduced into London with good effect. The adulteration of wines would thus be much more difficult, and though the mingling of inferior with superior wines could

not, perhaps, be abolished, it would be less frequently practised, whilst the making of fictitious wines would cease. The penalties should not be so excessive as to defeat the end, as is the case with some of the excise laws, which are in many cases at war with the objects they have in view, and, in practice, as secret, dark, and impenetrable as those of the inquisition. They are destructive of the social compact, and of the principle of justice (the basis of all law), by encouraging men to commit offences that they may, through obtaining accomplices in their own frauds, make them legal victims, and obtain a further reward by their own infamy. What other construction can be put on the permission of a man to sell smuggled goods, and put the money into his pocket, that he may convict the individual he has induced, perhaps by falsehoods and entreaties, to purchase. No government, on any consideration, should violate, for the plea of revenue or any other excuse, the great fundamental principles of natural morality—the natural justice of universal conscience. Such enactments are unworthy of modern civilisation, and will not much longer be tolerated in the code of civilised nations. The revenue must be protected, but in so doing, both in money and morality, more may be paid than is at all politic.

Laws against adulteration of wines are of old standing in this country, and it is only of late years that they seem to have given way before enactments against the state crime of cheating the excise. Anciently, there was an effective company of vintners, who took care of similar matters; and mention is made of a Lord Mayor, in 1426, flinging a hundred and fifty butts of adulterated wine into the kennel. Charles II., among whose vices the want of regard for good wine is not enumerated, signed an act, which showed that he was determined there should be no mixture of any kind in his wine, by prohibiting the use of any substance whatever, even wine itself from being intermingled. This act, 12 Car. II., might be modified with great advantage in the present day. As it stands it is inoperative, for no merchant can fine or flavour his wines if it be enforced, and, if taken literally, there are a great many substances used by adulterators which are not forbidden in its clauses. To such an extent is this base mode of swindling carried in the present time, that some severe

measure seems doubly necessary to restrain it, for to prevent it altogether is impossible, unless the public will declare the purity of the article rather than its cheapness their main object in purchasing, and more especially make it a rule never to buy of wine sellers who advertise cheap wines. There is no scarcity of good wine, if it be wisely sought after, and paid for liberally. Government is more especially bound to do all its power to aid in this desirable object, because, were wine free of taxation, it would not be worth while to adulterate it, and the mischief would remedy itself, the fraud on the revenue as well as on the purchaser tempting dishonest traders by its double profit.

The various docks on the Thames do not secure purchasers from the malpractises of dishonest dealers; in this many are deceived. It has been naturally, yet erroneously imagined, that wine purchased in the docks must be a pure article. Malaga sherry is constantly shipped to England for the real sherry of Xeres, Figueras for port, and so on. Port wine being sent from the place of its growth to Guernsey and Jersey, and there reshipped with the original quantity tripled for the English market, the docks are no security. Wine, too, may be racked in the docks into casks of less measure, and there is plenty of room for fraud in this apparently well-timed permission, of which the dishonest have known how to avail themselves.

Finally, the best test against adulterated wine is a perfect acquaintance with that which is good. Those whose test of wine is the degree of spirituous strength it affords, may remain satisfied with wines as they are. They who commend the purple draught for the warmth it imparts to the stomach, which has been perhaps for years at the temperature of a hundred and twenty of Fahrenheit, can only value it in proportion as it stimulates the already over-excited organ. Swallowers of Madeira and Cayenne pepper, cognac and capsicum, proof whisky, and similar fiery liquids or compounds, may purchase their wines anywhere. Indeed, be the desired virtue of potency but mentioned to the adulterator or maker, it will be provided high coloured and burning enough for the most tropical taste, or for Chaubert himself. To such this chapter is at least a "vox, et præterea nihil." But by those who seek not "strong drink," nor "mixed wine," who relish

the healthful glass that cheers without inebriation, that enlivens conversational ideas without coarse mirth, and kindles social friendship in the hour of relaxation, without passing the limits of well-regulated enjoyment, these remarks may be better received. The effect of pure wine upon a healthful stomach is known in this country but by few. It is lamentable that the general taste has been so perverted. Those whose judgment of what wine should be is founded upon the general run of port for the last forty years in this country, are not in the situation of judging what is really intended by wine. Who would think of valuing the malt liquors of this country in proportion as their composition was deteriorated from the pure malt and hop, in proportion as gin, coculus indicus, or tobacco, imparted to them a strength and flavour not derived from the corn which is their basis? Yet such is the too general taste for wine indulged in by the bulk of the community. The man of taste, on the contrary, whose stomach is not a "burning fiery furnace," who knows how to enjoy wine of delicacy, perfume, and aroma—who finds in the juice of the grape alone those virtues which a proper and rational participation in the benevolent gifts of Providence enables him to discriminate—will feel the truth of what has been laid down here, and acknowledge its justice. "Claret for boys, port for men, brandy for heroes," said Johnson, whose coarseness was not among his virtues. "Burgundy or claret for gentlemen, port for carters,* and brandy for savages," would have been a more just apophthegm.

A word or two may not be inappropriately added here in regard to drinking wine, though not strictly the historical part of the subject, belonging rather to manners.

Nations differ in the mode of using wine. The French take theirs at dinner; the Germans sit late and early; the Russians are only a little more moderate than the Germans. The two last are boisterous in their cups; the first takes just enough to make his conversation sparkle like his own wines, among the ladies, with whom he rises from the table. The

* It is not to be imagined the author supposes there is no good port wine; but only that a very large proportion of what is so called is not worthy to be called wine, from not having the true vinous properties, and being spirituous enough for stomachs of caoutchoue. A glass of good old port, pure and generous, may be met with occasionally yet, and valued the more from its rarity.

Englishman, in respect to the quantity he takes, formerly adopted the French and German modes combined; he took wine with dinner and much afterwards. In this respect he has of late years wonderfully improved; inebriety is very happily gone out of fashion in good society. Still the national characteristic of the grave effect of wine on the Englishman remains, owing to the strong species in which he delights; for, just as old Froissart describes, he still "gets drunk very sorrowfully."

In the better circles of society, and where expense is of no moment, the purer wines are generally taken; but great care is necessary in going into company, as to the quality of the wine a guest may find before him. If he have any apprehension, it is better he select one kind which is sound and take no other. Madeira, Sherry, or Bucellas of tolerable quality are safer than any red wine of dubious quality and spirituous strength. A light French white wine is very far better. The acid of a wine with little spirit will speedily give way to a spoonful of magnesia, should it by accident happen to disagree from ill quality, but if it be a strong brandied wine, the effect of only half a dozen glasses is quite enough to make them long remembered. At public dinners, with six-sevenths of tavern wine, great hazards are run. In a large company, where the individual is thrown off his guard by speeches, toasts, and claptraps of all kinds, it is far better to order, if it agree with the individual, a decanter of weak brandy and water, and pass the wine bottles as they come round. Many would this way escape a fearful headache. A decanter of sherry and water half-and-half, if it can be obtained, or even lemonade, may be thus substituted. It is at public dinners that bad wines are got off, just as bad Champagne and genuine gooseberry pass unnoticed at balls and places of public resort, where dancing and exercise, or the heat of the rooms, make any liquid grateful to the palate.

With the foregoing caution as to public dinners, or parties where "mine host" is not conversant with good wine, and scarcely knows Sherry from Cape, a good look-out must be kept: this is easily done, for, if there is a variety, no doubt something tolerable may turn up. At tables of consideration in society there will always be good wine of some kind, if there be any one species bad at all. It is not a good rule to

drink of too many kinds of wine at dinner. A glass of full-bodied strong white wine should always follow the soup. Good sherry is perhaps the best, and then Madeira may be taken until the soup or first course is removed; then the light wines may be introduced with effect, except Champagne, which should be drunk when the things are removing for the dessert. The still kind is the best, then the creaming, and last of all the more effervescent.

In fashionable life there are always three, four, or more kinds of white wine on the table during dinner, besides port on the sideboard. It is not common to take any red wine with dinner, as with some dishes it comports very ill. The French commonly begin with white wine of some kind, as they frequently take oysters first, with which red wines do not harmonize. The sweet wines and liqueurs should come after the ices. There is a method or fitness in all these matters. In the middling class of society in England, where expensive wines are often given, the correct order of things is reversed, and no regard is paid to the course of the dishes in which at the moment of taking wine the guests may be participating.

A Frenchman will take oysters and a glass of Pontac or Chablis. Then his soup is followed by a glass of good ordinary red wine, such as Macon. With the other wines he follows his inclination; sometimes Burgundy, Hermitage, or white growths, except that, after the first course is taken off, he pours out a very small glass of Madeira, rum, or something similar. The French never decant their finest wines, such as Romanée, Chambertin, or Lafitte, and they take them out of very thin glasses. Champagne is drunk just before their dessert, and the ices are followed by liqueurs, sweet wines, or a glass of punch *à la Romaine*. The wines are never demanded but under the name of the particular growth. At private dinners *à la Russe* the wines are placed upon the table, but no dishes. The guests help themselves to wine according to their fancy. The dishes are on side tables, the guests being presented with a card of a variety ready for that day, so that each may order the servants to bring what most pleases his fancy. The centre of the table is commonly decorated with an ornament, near which the wines are placed, when the table happens to be circular. Sometimes the servants pour out the wines. In most other countries of Europe, in good society,

the French mode is imitated pretty closely in the variety of wines, time, and mode of taking them. Rhenish wines of all kinds are taken out of green or coloured glasses, after the manner of the country. Always ice white wines in summer if the weather be hot; but with red wines this must not be regarded, as a great degree of cold is apt to affect their flavour. If the cellar be of the requisite degree of coldness, say 52° or 53° and the thermometer stand at 70°, the wine is full cold enough to be grateful; and, brought directly from the cellar to the guest, which it should always be at that season, the outside of the decanter will be clouded, a sure test that the wine is sufficiently cold. Where ice is not obtainable the white wine decanter may be hung up in a flannel bag, previously well soaked in water in the full glare of the sun's rays, where there is also a strong draft of air. The constant evaporation keeping the bag dripping wet, will cool the wine almost to the freezing point. The water of a covered well or spring drawn fresh, in which a pound or two of salt is thrown, placed in a cool cellar, will reduce the temperature of wine to a very low and agreeable point. Perhaps the old Italian custom of lowering the wine for dinner in a well, an hour or two before use, renders it cool enough. Lastly, if expense be no object, freezing mixtures may be used. Eleven parts of sal ammoniac, dry and powdered; ten of nitre; sixteen of Glauber's salts; and thirty-two of water, will cool wine sufficiently in any climate—observing that the operation should be carried on in the coldest place possible.

In winter, when a bottle of wine instead of being bright looks clouded, which is the effect of atmospheric cold below the cellar temperature, it may be placed in a room where there is a good fire for an hour or two before dinner. The strong white wines, such as sherry or Madeira, may in winter be decanted two or three hours before dinner with advantage, and the stoppers of the decanter left out, if they are deposited in the dinner room in the interim. This should never be done with light or delicate French wines, either red or white, because their bouquet and freshness are thereby affected. It is for this reason that such wines are best drunk out of the bottle the moment they are drawn, and without decanting. As to wine-coolers,—they are ornamental luxuries; nothing more; unless, indeed, they contain ice and water, and then

the wet bottle is no very pleasant thing to hand round over the snowy damask, which, in the best society, is never taken off the table until the guests have departed from the dining-room. Wine that deposits should be strained into the decanter, if the owner be very particular about its brightness. The common silver funnel, perforated, used for this purpose, by some called a strainer, is of very little use, and does its office ill. A funnel of the inverted cone shape, having a little way down within, a wire, round which is fastened a muslin bag, like those used for coffee, is by far the best strainer. It may be made of silver, with a bent beak and tolerably large orifice. The cork being carefully drawn, shaking the bottle as little as possible, the wine should be poured in with a uniform stream, the orifice of the bottle being previously cleared of every particle of dust, wax or cork, that may hang upon it. For a steady extraction of the cork with the bottle in a state of perfect rest, the patent spiral corkscrew is the best, as it not only permits the bottle to remain without chance of motion while it is used, but it prevents the danger of fracture in the bottle if it be cracked or made of very thin glass, an accident attended with much danger to the hands. It is to guard against this danger that waiters in taverns are frequently seen to strike the bottle before drawing the cork, that they may find if it be sound, and then to wrap a cloth around it. There is some little attention required in using the patent screw, that is all. If the operator is not a perfect master of his art with that instrument, the old way and a common screw are best. To prevent accident, a napkin must be bound round that hand which grasps the bottle, though even then the inside of the thighs, above the knees, is by no means free from danger; while, if the bottle be broke at all, the wine is lost. No hazard of either kind is incurred by a correct use of the patent screw. What is called the bees-wing in port will not render the wine turbid, though few like to see any substance floating in it. Some wines have a deposit like mud, which, once set in motion, will render the wine highly turbid for a time, and no strainer will cure it. Such wine must be very carefully managed in decanting, particularly in keeping the same side of the bottle up that was uppermost in the bin, while the liquid is poured, and not emptied out too near the dregs.

The art of taking wine is the science of exciting agreeable conversation and eliciting brilliant thoughts for an idle hour between the repast and the drawing-room. Wine makes some men dull; such persons should on no account drink the strong brandied wines of the south, but confine themselves to the light red French growths, or to the white, pregnant with carbonic gas. If these fail to promote cheerfulness; if with the light Burgundy, with Lafitte, or the ethereal sparkle of Champagne, a man continue unmoved, he may depend the innocent use of wine cannot be his. He may excite himself by the stronger kinds, and half intoxicate himself to raise a leaven of agreeability which is altogether artificial;—he may woo mirth "sorrowfully," but he will only injure his stomach and cloud his brain. Oftentimes do Englishmen drink themselves into taciturnity below-stairs, and, ascending to the drawing-room, sit silent and solemn as so many quakers, among the fair sex. Such are past the stage of innocent excitement by a rational quantity of the juice of the grape. They take it because the effect is a temporary indifference, an agreeable suspense from pleasure and from pain. Such are not the true enjoyers of wine in its legitimate use; and they should always rise and retire with the ladies, for the effect upon them is that of a narcotic.

The true enjoyer of wine finds it exhilarate the spirits, increase the memory, and promote cheerfulness. If he be something of a wit, it draws out his hoarded stores of good sayings and lively repartees, during the moment of relaxation from thought, at the hour when it is good "to sit awhile." The cheerful glass calls into action his better natural qualities, as with the ruby liquid he swallows "a sunbeam of the sky." He makes his wine secondary to his conversation, and when he finds the latter at what he thinks its keenest edge and brightest polish, he leaves the table to mingle with beauty, and exchange the wine for a sparkle of more attractive and higher character, perhaps to bask in "the purple light of love." He who would destroy good wine, by taking it when its flavour is no longer fresh to the palate, is a drunkard; he knows nothing of the refinement in animal enjoyment, which consists in taking rather less than enough. Always to rise from the feast with an appetite is a maxim which, however gourmands and sensualists may despise it, is the course for a rational

being, as well as that which yields the richest enjoyment. By this we preserve the freshness of the first taste, the full flavour of the first sip. As the odour of the rose deadens upon the sense after the first exhalation, so is it with wine and with all our enjoyments. Thus we learn how we may, in the truest and most refined sense, enjoy the pleasures by which the benevolence of Him who has given us the things enjoyed is best repaid by our enjoying wisely.

Many who are of the earth, earthy, imagine, as long as they get wine into the stomach, it is no matter how the thing is done. Such persons may be styled "stomach-drinkers," and may as well attain the lodgment of the fluid in the part desired by means of a forcing pump and a tube as any other mode. The palate to them is secondary to the warmth of this general magazine of liquids and solids. One of true oinographical taste must feel a horror at association over wine with such persons. A refinement even in our sins is better than the grossness of the coarser natures of mankind in animal vices. How much does this tell in innocent enjoyment. As Chesterfield felt when his son licked the plate at table, despite all his instructions in good breeding, it may be imagined how the man of refinement feels in the company of coarse, vulgar companions over wine. One half our pleasures are relative or conventional, and therefore alloy in any mode turns them to pain.

All delicate wines should be taken out of thin glasses. The reason why wines of this class drink better out of such glasses it is impossible to say. The greatest objection, except to the opulent, is the ease with which such glasses are broken by servants, which renders them expensive. Their form may be adapted to the fancy or to the reigning fashion. To a man of taste in such matters, Romanée and Lafitte would lose half their flavour in heavy coarse glass, though to the thick oily wines *de liqueur* or to sweet wines, the same rule of adaptation does not seem to apply. The glass and the specific gravity of the wine should harmonise. The ancients had a passion for particular wine-cups. The rich murrhine cup, out of which the emperors and patricians drank their Falernian wine, the Surrentine, the cups or vases of Saguntum in Spain, and so on. The murrhine cup was the great luxury, because it imparted a perfume to the wine drunk out of it. The modern

preference of thin glasses for the first-class wines has therefore the merit of a species of precedent. If we could divide a soap bubble in half while floating on the zephyr, we should have a perfect bowl out of which to quaff Romanée, Lafitte, or Sillery.

In all cases wine-glass coolers, with the coldest water, should be laid on the table and the glasses reversed in them. No one should pour out more wine at his dinner than he intends to take at one sip, and then immediately reverse his glass. For this purpose, glasses without feet are sometimes used, so that the reversing them in the water it is impossible to omit.

The chief thing in the art of drinking wine, is to keep within those salutary limits which mark the beneficial from the pernicious. In good society, in the present day, this line is well defined; but a man must mingle in this distempered life with every class, and the difficulty is to keep the mean in those cases, where others have no regard to it. This is best done by studying self-respect, and the art of saying "no," when the necessity for saying "no" is strongly felt. The courage to do this, and that absence of all fear of being accounted singular—which it is a man's duty to cultivate, if he wish to be thought worthy of his species—will prevent his suffering in stomach or moral character from that table-complaisance which the too pliant force upon themselves contrary to their better feelings.

APPENDIX.

No. I.

Distillation was a process unkuowu to the ancients, and though practised by chemists in Europe, it is probable, from 1150, or about the twelfth century, it did not, until the beginning of the eighteenth, become a general art. We are indebted to the Arabs for the invention of distillation, about the year 900.

Curious distillation in England is inferior both in the mode of the operation, and the excellence of the product, to that of France. Some of the French apparatus is exceedingly complex and expensive, and each kind has a specific applicatiou. The excellence of French brandy of the first quality need not be dwelt upon here. In 1639 the art was well established in France. Since 1789 the increase in quality has kept pace with a great improvement in that year. Wine from the grape is the subject of general distillation, although alcohol is produced from numerous other substances.

Alcohol is composed of.....	13·04	Hydrogen.
	52·17	Carbon.
	34·79	Oxygen.
Total.....	100·0	Parts.

Of wine, 5,229,880 hectolitres are distilled, and give 55,497 hectolitres of spirit, in strength nineteen degrees of Cartier's *hydrometer;* 169,807 at twenty degrees; 343 at twenty-one; 353,883 at twenty-two; and 172,415 at thirty-three. In pure alcohol the whole amount is 469,817 hectolitres, 36 litres, according to M. Gay Lussac. The principal departments where distillation is carried on are those of Aude, Herault, Gard, Gers, Charente, and Charente Inférieure. Then come the Loire and Cher, Gironde, Lot and Garonne, Var, Loire Inférieure, Dordogne, Deux Sèvres, Bouches du Rhone, and Landes.

The murks, however well pressed, always contain a portion of undecomposed sugar, besides being impregnated with the wine in the vat, whether red or white. These are fermented anew and distilled, and the product is called brandy of the murk. The produce is about 37,288·07 hectolitres of pure alcohol, from 70,015 hectolitres of brandy. Cider and perry, corn, potatoes, prunes, cherries, the residue of breweries, furnish together 93,457 hectolitres more of brandy of nineteen degrees of strength. In all, 915,417 hectolitres of brandy, yielding 553,086·27 of pure alcohol. Common distillation was formerly effected in France by an apparatus that made small quantities of spirit at a time, of a very faulty construction. The more modern apparatus of

every kind is improved, so as to work well, and give French spirit, let the substance distilled be what it may, a very great advantage over our own, where the process of distillation is in the hands of the Excise, and the distiller is not permitted to make a liquor which can be drunk.*

In large stills the head is of copper, but in small ones of tin. In the ancient still, the head was made with a neck, to retain the descending steam, and carry it into the beak of the head; but at present this is omitted, as being of no real service, because a free passage is allowed to the spirituous part, which is not condensed until the vapour has passed out of the vessel. The worm is of copper in the large apparatus, with as many spiral turns as possible, its diameter being nicely adjusted to the condensation demanded. It is kept cool by fresh water continually introduced into the vessel which contains it. The utmost care is taken that the fire be not too high. In fact, this is considered one of the operations in distillation requiring most experience, and to this end the masonry of the furnace is adapted with great care, so that the heat shall be distributed as equally as possible; the fire being concentrated against the bottom of the still. The chimney is frequently provided with a valve to enlarge or contract at pleasure, and thus equalise the current of air, which keeps the fire in activity, according to the state of the atmosphere. The greatest improvement in the chimneys is considered to be one long known, but not brought into general use until Count Chaptal set the example. It consists, instead of the straight funnel of the common chimney, in the introduction of a spiral flue, which winds several times round the still two-thirds of its height, and thus makes the flame which, in the common method, is lost, to the last possible moment available for the work. Care must be taken, however, that these spirals be not carried above the usual level of the liquor in the still, lest the metal be destroyed by the flame.

The marine bath is used for delicate liquors, that cannot bear the direct action of the fire without being tainted or altered. A still, in this case, is always made of the purest tin, and placed within the larger, which last is filled with water. The first is carefully isolated from the sides and bottom of the external vessel, and in consequence its contents are not exposed to a greater heat than that of boiling water. These vessels are luted with care. The substances employed are quenched lime, well mingled into a soft paste with whites of eggs; the only defect of this luting is, that it dries too quickly if the whites are not beaten up with a little water prior to mixing and tempering the lime with them. Lime tempered with curdled milk or bullock's blood, or new wood ashes and bullock's blood, are used. Chalk or lime tempered with boiled linseed oil and litharge, formerly adopted, is now

* Government will not allow the distiller in England to distil a wash that will produce less than nineteen per cent. of spirit, which of course cannot be drunk. Although a duty of ten and sixpence a gallon is levied upon the spirit in its pure state, the distiller must dispose of it to a rectifier, who adulterates it with juniper, spirit of turpentine, and similar trash, and sells it diluted as *gin*, or, spoiling it with spirit of nitre or prunes, calls it brandy. By this means England has no pure distilled spirit from the grain, like Scotch or Irish whisky. Such is ill-managed taxation, which sacrifices the end and usefulness of a thing to the extortion of a revenue by increased injury to the stomachs of consumers.

very rarely applied. Lime kneaded with whites of eggs or fresh cheese is considered the best luting of all others.

The main object of distillation with the French is to disengage the spirit speedily, with as much purity as possible, together with the aromatic principle belonging to the substance distilled, where any such may be. It is carefully seen that the liquid remain uniformly at the proper temperature. The still is filled three parts full of wine, and the vessel being luted and secured, and cold water let in round the worm, the fire is raised until the wine is in a state of ebullition. The air within the apparatus now becomes violently dilated, and escapes by the inferior part of the worm, or through the joints, and is speedily followed by the condensing steam, which begins first to cover in drops the head of the still, and run back into it, until the head has acquired a degree of heat from the contact sufficient to prevent the condensation. Cold water is then thrown upon the head, and the condensation renewed until no more takes place within the still, but the constantly ascending vapour drives all into the worm, where it condenses in the same manner as the first ascending vapours did, against the head of the still while it was yet cool. The cold water round the worm is continually renewed. If this is not done, or if, by any accident, the surrounding temperature become too elevated, though the vapour may not be of sufficient strength to burst the apparatus, the aroma and fine taste of the liquid distilled are injured or entirely destroyed. Wines which most abound in spirit naturally boil quickest, and the largest quantity of fuel is required for the poorest wines. The brandy which is first given out from the still is weak, and not well flavoured; it is always flung back into the vessel. This is speedily followed by the purest product, which is called *eau de vie première*, to distinguish it from that which is given out subsequently. The excellence and strength of the *première* depend naturally upon the quality and richness of the wine and the management of the fire under the still. As the distillation proceeds, the brandy given out becomes weaker, so as at last not to exceed the strength of ten or twelve degrees. When the spirit nearly ceases to be what is called *preuve de Hollande*, from eighteen to nineteen degrees, or *preuve de huile*, from nineteen to twenty-two degrees of the hydrometer (so called, because on letting a drop of oil fall from a small height into the brandy it sinks to the bottom), they put aside the *eau de vie première*, or first brandy, and this operation is styled *couper à la serpente*, literally, "to put a stop to the worm." This first brandy is supposed to contain a considerable quantity of an essential oil from the wine, which imparts to it an agreeable bouquet, not to be met with in that which succeeds it, being among the substances first volatilised in the operation. This taste or bouquet is lost in the brandy which comes to England, denominated Cognac, owing to the prejudice indulged here in behalf of particular flavours, to obtain which, in the use of burnt sugar, all its traces are destroyed. Still, *eau de vie première* is the only kind exported, because the manufacturer finds it more advantageous to redistil the other and inferior products into a stronger spirit, or, as it is called, spirit of *trois-six*, as it saves expense both in casks and transport. In distilling common and poor

wines, it is not customary *pour couper à la serpente*, or to put aside the first spirit. That in the still is generally worked out, and then converted by redistillation into spirit of *trois-six*, from the state called *petites eaux de vie*, or second products. Brandy beyond *preuve de huile* is called *eau de vie double*, up to twenty-eight degrees. Brandy is, however, not generally made quite up to twenty-two degrees of strength, because the duties are nearly doubled upon all above that scale. The best cognac is $21\frac{3}{4}$. Spirit of wine is measured in strength in the same manner as brandy, but the mode of expression is different. Thus, spirit of five-sixths requires one part of water to reduce it to eighteen degrees, and is therefore called of the strength of twenty-two. Alcohol of three-sixths requires three-sixths, or one half water, and is in general about thirty-three degrees of strength. The last is the only spirit of wine exported.

The mode in which the strength of spirit is calculated is always regulated by the temperature of the product from the worm, for the temperature and strength bear a regular proportion. If it be more than ten degrees of Reaumur, when taken immediately from the still, it is found proper, in stating exactly its degree of strength, to calculate for every five degrees of the thermometer one less of Cartier's hydrometer.

So strongly marked is the spirit with the taste of the wine from which it is distilled, that persons of experience can always easily tell from what wine district it comes, and from what species of grape. The brandy distilled from the grape, it is needless to say, after this, is easily discriminated from that produced by any other substance. From the still it is apt to contract two bad qualities, the one called in France the *goût de feu*, or taste of the still. This, time generally cures; the other an empyreumatic taste, caused by a minute portion of the copper of the still becoming decomposed, and, by being burned, imparting a bad taste to the brandy, which some assert to be poisonous.

The preservation of the aroma of any liquor may be secured, or the aroma diminished at pleasure, by taking the spirit as low in strength as will answer the end proposed, keeping up the fire to make the odour or savour ascend rapidly. On the other hand, when it is necessary to get rid of any particular taste, the distillation should be carried to the highest degree. Aromatic liquors lose much of their peculiar flavour by redistilling. The manufacturers of brandy from inferior materials are so aware of this, that they make their products of the highest proof, and adding a third of the quantity of genuine brandy of the strongest character, delude the unwary by its resemblance to the real quality. If the fire be kept too high, the product is made feeble, from the too rapid ascension of the vapour; if too low, its action may entirely cease. An exact and skilful regulation of the fire alone ensures a good quantity of the *eau de vie première*. Liquids that deposit are agitated to prevent the burning of the deposition, until they are in a state of ebullition. Very solid substances are suspended in the still in cloth bags when the marine bath is not used, and danger of burning is apprehended. By due care in redistilling, the worst brandy from the murk is rendered potable. Fine liquors and perfumes are rectified in

alembics of glass, with the greatest eare and delieaey of treatment. The range of Freneh distillation is very widely extended to all roots, vegetables, and fruits, that abound in saeeharine matter. The fruits require ouly to be perfeetly mashed, water in a proper proportion poured upou them, aud then set to ferment, with or without the addition of leaven, as the ease may be. The produet is a liquor possessing the flavour of the partieular fruit, and more or less rieh aeeording to the quality and eareful treatment bestowed upon it. Some of the kernels, partieularly that of the plum, give out so mueh prussie aeid on distillation, that the produet must be carefully diluted. It is best for seeurity in all eases to separate the stones from the fruit before fermentation, and to distil them separately, or put them aside altogether, to avoid hazard by those unaeeustomed to their distillation. In Franee a eonsiderable portion of agrieultural produee, whieh is of little use for any other purpose, is devoted to making brandy of inferior quality, whieh may be applied to numerous purposes of domestic eeonomy. The sediment of wines from garden fruits, honey, molasses from the best sugar, eorn, potatoes (of whieh latter the produet is very great), and similar substanees, are all distilled in Franee, and the spirit is a souree of profit to the agrieulturist, from whieh in England he is debarred by the Exeise. The eoarseness, or ill-flavour of the brandy, is mueh redueed by judieious treatment and by reetifieation.

All spirit is aseertained to be more or less aleoholie by its speeifie gravity, and this is the eriterion whieh the Freneh apply, as least liable to err, for aseertaining most easily the quantity of spirit in a mixture of spirit and water. Spirit of *trois-six* is in proportion to water as eight hundred and forty to a thousaud, so that a eube of water, or a litre weighing a thousand *grammes* of the same quantity of spirit, would weigh but eight hundred and forty. This litre of a thousand grammes forms a standard by whieh to try the strength of every mixture of spirit. It suffiees to multiply a thousand, the eentimetre eubes in a litre of water, by the differenee between that and the speeifie gravity of the liquor to be tried, and to divide the produet by the differenee between the speeifie gravity of a litre of pure spirit, as a point of eomparison, with that of a litre of water. A table of the speeifie gravities of brandy is kept for this purpose, graduated by the hydrometer.

The *titre*, the quality or proper title of strength of the brandy, is established by the hydrometer. But as a variation of temperature of Reaumur, varying five degrees, changes the instrument of Cartier one degree more or less, the titre of the brandy is always established at a temperature of ten degrees of Reaumur, and from this temperature the instrument is graduated on the scale. Thus there is a fairness in the strength of the spirit proclaimed to the purchaser, who might else be a loser, as well as the seller, from differenees in the volume, and the eonsequent erroneous analysis.

Brandy must have age to lose the new taste from the still, yet, if kept in a warm plaee in wood, it will lose a portion of its spirit by evaporation. The wood, too, gives an amber-colour to the spirit, and impairs its elearness, whieh should be transparent as water. In order

to remedy this, the brandy is frequently injured in quality by attempting to give it limpidity, though in that exported to England any tint it has received in the still or wood is of no importance.

The heavy wines of the south, and such as are abundant in tartar, give very middling brandy; that from acid or pricked wines is deeply tainted. Wines abounding in saccharine matter, which has decomposed entirely during the insensible fermentation, give the best spirit. These last wines are not distilled new, as they are apt to burn, and give out less alcohol. White wines give a softer brandy than red. All brandy should be of the right colour, and that of cognac should not conceal an ill-coloured article when it is prepared for exportation. Brandy is reduced, when necessary, by an admixture of water, which the French call *mouillage*. Heat is given out in this operation. The brandy must be agitated, and the quantity nicely adjusted to reduce the strength to the required degree. For this purpose, the quantity of strength to be reduced is multiplied by the number of degrees it carries on the hydrometer. The product is divided by the number of degrees of which it is desired the brandy should consist when lowered. Subtracting from this sum the quantity of spirit employed, the water to be added is found. Suppose 25 litres of spirit, at 32 degrees, are to be lowered to 18 degrees, it is found that 800 is the product of 25 multiplied by 32; this divided by 18, gives 44 litres 44 centilitres. It only remains to subtract the litres of spirit employed, and the result is 19·44 the quantity of water required. Pure spirit of wine is generally sold by the veltc.

Thus everything in the conduct of distillation in France is regulated by due attention to science, which accounts for the superiority of that country in this and several similar branches of the useful arts.

This statement respecting distillation will serve without the particulars of the process in other countries, where it is managed in an inferior manner. Spanish brandy ranks next in quality to that of France. The prices of 1849 ranged from 4s. 6d. to 5s. 8d. per gallon imperial, according to age.

No. II.

WINES OF THE FIRST CLASS.

FRANCE, SPAIN, HUNGARY, GERMANY, SICILY, NAPLES, CAPE OF GOOD HOPE.

Wines.	Country.	Place.	Character.
Romanée Conti	France	Côte d'Or	The first and most delicate red wines in the world, full of rich perfume, of exquisite bouquet and fine purple colour, light, yet with body and spirit sufficient to render them pleasant and healthful in use.
Chambertin	do.	do.	
Richebourg	do.	do.	
Clos Vougeot	do.	do.	
Romanée St. Vivant	do.	do.	
La Tache	do.	do.	
St. Georges	do.	do.	
Corton	do.	do.	

(continued)

Wines.	Country.	Place.	Character.
First growths of Prémaux	France	Côto d'Or	Burgundies, closely resembling tho above growths in aroma, and all their other qualities.
Musigny	do.	do.	
Clos du Tart	do.	do.	
St. Jean	do.	do.	
Perrière	do.	do.	
Veroilles	do.	do.	
Morgeot	do.	do.	
Mont Rachet	do.	do.	White highly esteemed.
Lafitte	do.	Gironde	Fine colour and perfume, light, less warm than Burgundy, with a taste of the violet, and rich purple hue.
Latour	do.	do.	
Château Margaux	do.	do.	
Haut Brion	do.	do.	
Beaume	do.	La Drôme	Wines of tho Rhône, darker in colour than the preceding. Red Hermitago the most noted of these, of good body, and a fine flavour of the raspberry.
Muret	do.	do.	
Bessas, Burges, Landes	do.	do.	
Méal and Gréfieux	do.	do.	
Racoule, Guionière	do.	do.	
Sillery	do.	Marne	White, still, dry; of an amber colour; generally iced for drinking.
Ay	do.	do.	Fine effervescing wine, bright in colour, slightly frothing.
Mareuil	do.	do.	The best of the white wines of Champagne, being all of the first quality, but differing a little in colour and effervescence.
Hautvilliers	do.	do.	
Pierry	do.	do.	
Dizy	do.	do.	
Epernay "Closet"	do.	do.	
St. Bris	do.	Gironde	Fine white wines of excellent quality, lightish brown in colour, aroma most agreeable, and some of rather sweet taste.
Carbonnieux	do.	do.	
Pontac	do.	do.	
Sauterne	do.	do.	
Barsac	do.	do.	
Preignac and Beaumes	do.	do.	
Château Grillet	do.	La Loire	Description resembles the preceding.
Hermitage	do.	Rhône	Full of body, spirit, and perfume. The white is the finest of all white wines.
Rivesaltes	do.	Pyrénées Orientales	A rich muscadine.
Colmar, Olwiller, Kaiserberg	do.	Haut Rhin	Straw wines, rich and luscious.
Kientzheim, Ammerschwir	do.	do.	Do.
Hermitage de Paille	do.	Rhône	Do.
Amontillado Sherry	Spain	Andalusia	A dry, delicate wine.
Schloss Johannisberger	Germany	The Rhine	Do.
Lacryma Christi	Naples	Naples	A fine, luscious, sweet red wine.
Syracuse	Sicily	Syracuse	Remarkably fine red muscat.
Tokay, Essence, and its first growths, called Tarczal, Szeghi, Zadany, Tolcsva, also Erdo-Benye, Zambor, Tallya, Mada	Hungary	County of Zemplin	Thick rich wines, known as Tokay, also Tokay-ausbruch.
Cotnar	Moldavia	Cotnar	Very spirituous, by some preferred to Tokay. Greenish colour.
Tho Commandery	Cyprus	Com. D.	Thick, rich, and luscious.
Constantia	Africa	Cape of Good Hope	Luscious; two kinds.
Lagrimas	Spain	Malaga	Thick and luscious.

The dry wines of the first class are all of French growth, except two. Dry wines of the first class will bear no mixture, except with their own growths; are too delicate to be adulterated without instant detection; are the pure offspring of the grape, and rank nearest to perfection of any known wines of ancient or modern times.

WINES OF THE SECOND CLASS.—FRENCH.

Wines.	Place.	Character.
Verzy, Verzenay, Mailly, St. Basle, Bouzy, St. Thierry	Maruo	Red wines of Champagne.
Vosne, Nuits, Chambolle, Volnay, Pomard, Beaune, Morey, Savigny, Meursalt	Côte d'Or	Excellent red Burgundies, very little inferior to first growths.
Olivotes, Pitoy, Perrière, Préaux	Yonne	Good wines.
Chainètte, Migrenne	do.	
Moulin à Vent, Torins, Chénas	Saonne et Loire, Rhône	Red.
Hermitage, second growths	Rhône	Red.
Côte Rôtie	do.	Red.
Rozan, Gorze, Léoville, Larose, Branne-Mouton, Pichou-Longueville, Calon	Gironde	Red.
Côteau Brûlé	Vaucluse	Red.
Jurauçon, Gan	Basses Pyrénées	Red.
Roussillon, Bagnols, Cosperon, Collioure, Torénmila, Terrats, Masdeu	Pyrénées Orientales	Red.
Cramant, Avize, Oger, Menil	Marne	White Champagne wines of good quality.
La Perrière, Combotte, Goutte d'Or, Genevrière, Charmes et Meursalt	Côte d'Or	White Burgundies, of high repute in France.
Guebwillers, Turkeim, Wolxheim, Molsheim, and Rangen, in Belfont	Haut Rhin Bas Rhin	Dry, white, and *vins de paille*, of good repute.
Arbois, Pupillin, Château Chalons	Jura	Good wine, *mousseux* and still.
Coudrieu	Rhône	A white wine, which keeps long, of fine *sève* and perfume.
Langon, Cerons, Podensac	Girondo	White wines, capable of endurance.
Moutbazillac, Teaulet, Raulis, Suma, Sancé	Dordogne	Good white wines of the country.
Buzet, Amazon, Vianne	Lot et Garonne	Generous white wines, of good body.
St. Peray, St. Jean	Ardèche	Delicate *mousseux* and *non mousseux*, of agreeable flavour.
Jurançon	Basses Pyrénées	White, with an agreeable perfume of the truffle.
Frontignan and Lunel Mazet	Herault	Sweet, rich, and luscious; white.
Bagnols, Collioure, Rodez	Pyrénées Orientales	Red, styled *de Grenache*, rich and sweet.
Maccabeo of Salcos	do.	Sweet. *vins de liqueur*.

THIRD CLASS.—FRENCH.

Wines.	Place.	Character.
Hautvilliers, Mareuil, Dizy, Pierry, Epernay, Taisy, Ludes, Chigny, Villers-Allerand, Cumiéres	Marne	Red Champagne wines of the second quality; light and agreeable.
Ricey, Avirey, Bagneux la Fosse...	Aube	Resembling the preceding.
Gevrey, Chassagne, Aloxe. Savigny sous Beaune, Blagny, Sautenay, Chenôve	Côte d'Or	Good Burgundies of the the third quality.
Clarion, Bonvin	Yonno	Ditto.
Fleury, Romanéche. Chapelle Guinchay	Saône et Loire	Ditto.
Chautergues, Montjuset	Puy de Dôme	Not wines of note; red.
Crozes, Mercurol, Gervant	Drôme	Resembling red Hermimitage; a little less full and fine, might be called Hermitage of the third quality.
Seyssuel, Revantin	Isère	Red wines, very middling of the class.
Verinay	Rhône	Resembling Côte Rôtie.
Pouillac, Margaux, Pessac, St. Estephe, St. Julien, Castelnau de Médoc, Cantenac, Talenee, Merignac, Canon	Girondo	Pouillac, St. Estephe, good light red wines; Castelnau mediocre; the other growths agreeable.
Fareies, Terrasse, Campreal	Dordogne	Resembling St. Emilion; keeping well.
Cape Breton, Soustons	Landes	Red, light coloured, with a harsh taste.
Chuzelan, Tavel, St. Genies, Virac, Ledenon, St. Laurent des Arbres	Gard	Red wines grown on the banks of the Rhône; will not keep good more than six years.
Châteauneuf	Vaucluse	Good red wines; keep well.
Riceys	Aube	Champagne: light and agreeable, white.
Rougeot de Meursalt	Côte d'Or	Tolerable wine; not exported.
Vaumorillon, Grises, Valmure, Grenouille, Vaudesir, Bourgereau, Mont de Milieu et Chablis	Yonne	In considerable esteem in Paris as wines of the table. They are all white.
Pouilly and Fuissé	Saône et Loire	Much the same as the preceding.
Etoile, Quintigny	Jura	White.
Pujols, Ilats, Landiras, Virelade, St. Croix du Mout Loupiac	Girondo	Do. of middling quality.
St. Michel sous Condrieu	Loire	Ditto; consumed in the country.
Frontignan and Lunel	Herault	Second growths of those famous and rich white wines.
Vins de Picardan of Marseillan and Pommerois. Vins de Calabria, de Malaga	do.	Rich, luscious, sweet wines, prepared in the department of Herault, and very little exported; also muscadines.
Roquevaire, Cassis, Ciotat. Vins Cuits	Bouches du Rhône	Rich sweet wines, boiled wines and malmseys, of good quality.

The above are the three first classes of French wines, including all which are commonly exported; there are, according to the best authorities, six classes of red, seven of white, and four of *vins de liqueur*. In these (exclusive of the list above comprising the choicest kinds) there are two hundred and forty-three white, nine *vins de liqueur*, and four hundred and sixty-three red wines, commencing with the fourth class. The wines of Champagne descend six degrees in class and quality, hence the importance of ascertaining the proper class by those who purchase them. It would occupy too much room to give the names of all the growths and vineyards. The author has a list of sixteen hundred in his possession, and they do not comprise the whole by a considerable number.

TABLE OF DEPARTMENTAL PRODUCE.

The following is the departmental product of the French vineyards, the number of hectares of vines, the product in hectolitres per hectare, the value of the wines for each department, and the hectolitres distilled into brandy, being the first statement of the same nature from authentic data published in this country. The whole are from the actual returns.

Departments.	Hectares of Vines.	Hectolitres par Hectare.	Total Hectolitres of Wine.	Value in Francs.	Hectolitres of Wine Distilled.	Hectolitres of Brandy.	Strength by Cartier.
Ain	16,418	22·78 9–16	373,828	5,617,120			
Aisne	8,494	31·98⅜	271,717	6,211,090			
Allier	15,243	18·95 1-15	288,866	5,113,350			
Alpes, Basses	3,600	28·00	99,800	1,596,800			
Alpes, Hautes	5,850	18·61⅜	108,900	1,633,500			
Ardèche	14,929	15·05 5-7	224,322	3,816,190			
Ardennes	1,960	28·33⅓	55,540	1,110,800			
Ariége	8,843	12·15⅛	117,453	1,761,795			
Aube	22,586	25·36½	572,870	9,858,232			
Aude	36,064	16·68⅜	601,775	6,326,136	191,000	27,286	33°
Aveyron	13,714	21·19	291,435	4,260,996			
Bouches du Rhône	27,338	21·59	590,244	8,803,302	45,000	9,000	20°
Calvados	5	20·00	100	1,500			
Cantal	400	10·80	4,320	51,840			
Charente	136,124	13·04½	1,826,092	17,008,844	1,300,418	185,774	22°
Charente Inférieure	85,107	21·05½	1,791,610	18,986,060	1,095,927	148,329	22°
Cher	13,054	25·61 5-12	332,832	6,666,356	1,260	210	20°
Corrèze	15,804	18·14	286,682	4,012.148			
Corse	10,485	31·12	310,730	4,660,950			
Côte d'Or	25,351	22·81	578,252	15,473,530			
Côtes du Nord							
Creuse							
Dordogne	64,316	10·27	660,704	11,913,854	50,000	7,600	19°
Doubs	6,625	21·13	139,978	2,566,812			
Drôme	28,212	18·00	507,908	9,918,152	...	40	19°
Eure	1,780	33·28½	59,240	1,356,096			
Eure et Loire	5,496	20·00	109,920	2,198,400			

(continued)

Departments.	Hectares of Vines.	Hectolitres par Hectare.	Total Hectolitres of Wine.	Value in Francs.	Hectolitres of Wine Distilled.	Hectolitres of Brandy.	Strength by Cartier.
Finistère							
Gard	51,198	20·34⅔	1,041,651	10,949,833	308,200	{ 29,616 { 20,000	20° 33°
Garonne Haute.	47,902	9·76	467,723	6,248,122	3,000	462	20°
Gers	73,785	14·83	1,094,612	10,309,462	300,100	83,333	20°
Gironde	137,002	18·72⅔	2,805,476	49,177,454	120,000	24,000	19°
Hérault	91,941	18·63 1-9	1,713,600	17,797,407	1,063,600	125,129	33°
	h. a.						
Ille et Vilaine	93,73	29·65½	2,757	33,084			
Indre	16,625	17·00	282,560	3,921,510			
Indre et Loire	28,310	23·00½	665,224	10,993,136	4,000	571	22°
Isère	10,665	34·58⅗	368,861	6,106,079			
Jura	16,487	18·70	308,297	5,025,979			
Landes	20,052	25½	511,209	6,209,000	40,000	5,714	19°
Loir et Cher	22,769	28·43 1-7	647,360	8,062,120	160,000	26,666	20°
Loir	11,254	24·54	276,162	5,517,430			
Loire Haute	4,445	20	88,900	1,264,140			
Loire Inférieure	28,643	28·65½	812,794	7,219,755	60,000	8,571	22°
Loiret	28,591	24·25	693,304	11,420,230			
Lot	49,759	11·39¼	566,859	9,566,112	3,000	500	19°
Lot et Garonne	38,483	16·43	579,187	10,972,069	93,250	17,643	19°
Lozère	995	15	14,925	268,650			
Maine et Loire	26,401	18·69¼	493,452	8,239,495	2,400	343	21°
Manche							
Marne	19,066	22·16	422,487	11,235,397			
Marne Haute	12,183	41·82	509,790	7,292,880			
Mayenne	681	13⅗	9,494	151,904			
Meurthe	13,592	50·64 5-6	688,358	9,430,296			
Meuse	12,250	44·61 1-12	546,523	9,093,656			
Morbihan	221	26½	5,876	76,388			
Moselle	5,254	49·63 1-26	260,759	4,693,662			
Nièvre	8,054	20·07¼	161,664	3,083,816			
Nord							
Oise	4,369	24⅔	108,316	3,449,566			
Orne							
Pas de Calais							
Puy de Dôme	21,436	16·46 2-21	352,859	7,335,760			
Pyrénées, Basses	20,483	16·26 7-20	333,330	5,270,433			
Pyrénées, Hautes	14,296	19·45	278,063	3,271,814	30,000	5,500	20°
Pyrénées, Orientales	29,913	11·50	343,968	7,164,612	1,200	250	20°
Rhin, Bas	13,087	35·51 8-13	464,807	8,336,526			
Rhin, Haut	11,694	29·70½	347,335	4,869,145			
Rhône	18,126	25·26⅔	458,000	10,366,400			
Saône, Haute	10,698	21·72 1-10	232,378	4,338,884			
Saône et Loire	30,708	21·52⅓	660,942	13,027,079			
Sarthe	9,689	15·36 1-16	148,753	2,172,650			
Seine	2,504	39½	99,117	1,953,120			
Seine Inférieure							
Seine et Marne	16,517	33⅔	557,516	8,462,740			
Seine et Oise	16,298	52·13⅝	849,718	14,775,880			
Sèvres, Deux	15,885	16·69 9-15	264,236	3,399,262	49,000	7,000	20°
Somme	62	11 1-7	690	13,800			
Tarn	20,631	21·00⅛	433,297	5,411,160			
Tarn et Garonne	23,168	11·40½	264,360	3,035,700	1,625	270	20°
Var	15,895	43·62½	693,448	8,303,780	65,000	12,000	20°

(continued)

Departments.	Hectares of Vines.	Hectolitres par Hectare.	Total Hectolitres of Wine.	Value in Francs.	Hectolitres of Wine Distilled.	Hectolitres of Brandy.	Strength by Cartier.
Vaueluse	22,038	16	362,208	6,519,744	15,000	2,500	20°
Vendée	13,374	25·19⅔	336,982	3,369,820	11,000	1,350	22°
Vienne	21,423	20·67½	435,451	4,881,130	16,000	2,288	22°
Vienne Haute...	2,351	15·52½	36,506	512,922			
Vosges	3,116	32·67¼	100,808	1,905,720			
Yonne	33,630	23·39½	886,604	23,639,086			
Totals.....	1,736,056	mean 20·27	35,075,689	540,389,298	5,229,880	751,945	
Add Brandy extracted from the Murk						70,015	
Total Brandy from the Vine						821,960	

An attempt was made some time ago to value the French wines according to their qualities, by M. Chaptal. Without being founded on any positive data, these calculations carried the total value to 718,941,675 francs. The statement was an exaggerated one. The totals of the Cadastre, and more minute inquiries, have established that the foregoing table comes as near as possible to the truth. The calculations of M. Chaptal thus made, it is, therefore, a waste of space to repeat here, having given the value of the wines in each separate department, with a total annually of 540,389,298 francs, or 22,516,220*l.* 15*s.* sterling.

The mean exportation of all kinds of wine may be rated at something above 1,155,074 hectolitres annually, of which England takes only 14,367. These added to the wines consumed in distillation, make about 6,384,953 hectolitres, leaving for wines drunk in France, spoiled, manufactured into vinegar, and the like, 28,690,736. The consumption of wine in all modes, therefore, reckoning the French population at 31,000,000, cannot be anything like a hectolitre per head per annum.

The value of the wines and spirits exported in 1823 was 76,639,026 francs; it had increased in 1832, in quantity if not in value, to 28,761,600 imperial gallons. The brandy exported is about 335,697·64 hectolitres per annum.

To recapitulate, and add the other spirituous drinks in France, except *liqueurs*.

	Hectolitres.	Value Francs.
The brandy, averaging 19°, distilled from other substances than the grape.....	93,457	14,018,550*
Cider and Perry	8,868,738	67,178,956
Beer	2,300,689	1,355,236
Wine.....	35,075,689	540,389,298
Total of all kinds.....	46,338,573	622,922,040

It has been estimated at about eighteen gallons, and the annual value of eight shillings per head, on 33,000,000 population. The following

* This brandy is perhaps valued too high at 150 francs the hectolitre.

has also been given as the produce of France and its disposal, the produce supposed to be 924,000,000 gallons.

Consumed by proprietors not paying duty	198,000,000
Manufactured into brandy	141,000,000
Loss and waste with grower	91,344,000
Ditto in conveyance and with dealers	44,000,000
Exported	24,530,000
Made into vinegar	11,000,000
Duty on consumption	308,000,000
Fraudulent consumption	105,466,000
or 42,000,000 hectolitres.	

The inhabitants of the towns consume 8,670,293 hectolitres, those of the country 19,122,707 hectolitres.

If to 28,690,736 hectolitres of wine are added 12,000,000 more for beer, cider, and other liquids of a similar kind consumed, there cannot then be reckoned, including waste, as much as $1\frac{1}{4}$ hectolitre of consumption per head for the population of France.

The prices of the wines of France it would be of little use to give for the current year, as they vary so much with the season. The prices approximating as nearly as possible to mean prices are given in the chapters descriptive of the wines, and need not be repeated tabularly.

The entire imports of French wine into Great Britain for the last hundred and fifty years were as follow: the home consumption is in some cases less, a part being exported.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1700	664	2	26	1729	894	0	51	1758	274	0	55
1701	2051	3	62	1730	636	0	24	1759	338	2	3
1702	1624	0	14	1731	1007	0	42	1760	377	2	37
1703	139	3	46	1732	865	2	44	1761	546	2	16
1704	198	3	7	1733	840	0	17	1762	303	3	49
1705	168	0	26	1734	780	1	56	1763	441	2	61
1706	158	3	3	1735	667	2	48	1764	446	1	7
1707	103	2	23	1736	528	3	4	1765	540	2	26
1708	167	1	23	1737	633	2	55	1766	497	3	7
1709	238	1	51	1738	471	2	22	1767	545	1	59
1710	113	3	60	1739	607	1	61	1768	441	2	39
1711	532	1	2	1740	856	2	47	1769	460	2	3
1712	116	0	39	1741	165	0	36	1770	468	2	27
1713	2551	2	26	1742	435	3	59	1771	535	3	20
1714	1198	1	55	1743	310	1	2	1772	475	3	17
1715	1260	2	48	1744	557	1	10	1773	494	1	61
1716	1570	1	49	1745	140	3	31	1774	560	0	52
1717	1396	1	37	1746	86	2	32	1775	497	1	43
1718	1798	1	42	1747	206	1	41	1776	434	3	48
1719	1766	2	2	1748	414	2	40	1777	602	1	35
1720	1366	0	36	1749	464	2	33	1778	595	2	3
1721	1247	1	20	1750	418	1	59	1779	363	1	34
1722	1424	3	16	1751	461	1	28	1780	376	1	33
1723	1037	1	8	1752	407	3	8	1781	378	3	38
1724	1147	3	57	1753	623	2	10	1782	456	3	14
1725	1087	3	14	1754	559	1	11	1783	370	0	33
1726	633	2	41	1755	650	1	34	1784	385	2	46
1727	1085	3	1	1756	554	3	44	1785	470	1	41
1728	1105	0	30	1757	350	3	24	1786	475	2	16

(continued)

	Tuns. Hds. Gall.		Tuns. Hds. Gall.		Imperial Gallons.
1787	2127 3 20	1809	13,105 0 33	1829	5474,37
1788	1445 1 45	1810	4,117 0 52	1830	408,210
1789	1114 3 26	1811	3,441 2 57	1831	337,093
1790	1101 2 52	1812	5,100 1 7¼	1832	278,863
1791	1137 0 43	1813	741 0 15	1833	228,627
1792	1617 1 9	1814	3,902 3 32½	1834	260,930
1793	1590 0 11	1815	2,116 1 17½	1835	271,661
1794	757 3 25	1816	1,612 0 46½	1836	352,063
1795	1347 2 49	1817	802 2 17⅝	1837	440,322
1796	1809 3 38	1818	1,798 2 6	1838	417,281
1797	850 0 2	1819	1,543 1 39½	1839	270,738
1798	1577 0 49	1820	1,090 3 30¼	1840	239,172
1799	1662 0 61	1821	1,057 1 6 2-20	1841	353,710
1800	2078 1 15	1822	1,193 0 17 11-20	1842	360,692
1801	2506 3 36			1843	326,498
1802	1236 1 16		Imperial Gallons.	1844	473,789
1803	1445 0 9	1823	307,326	1845	443,330
1804	1425 3 0	1824	249,520	1846	409,506
1805	2593 1 5	1825	978,635	1847	397,329
1806	5393 1 40	1826	427,801	1848	355,802
1807	5438 1 33	1827	353,904	1849	331,690
1808	7838 0 58	1828	451,361	1850	342,223

ROUSSILLON WINES. (Page 149.)

The statement in regard to these wines in the body of the present work was printed as their position when the first edition was published. The following bears relation to the wines of the province at the present time, the letter containing the statement having only just come to hand:

"The department of the Pyrenees Orientales, part of the old province of Roussillon, contains now about 30,000 hectares of vines, producing 11·50 hectolitres per hectare, or 345,000 hectolitres in all, of which the value is about 7,000,000 francs. The larger part of these wines is produced in the arrondissements of Perpignan and Ceret. They form two principal classes, known as 'Wines of the Plain,' and 'Wines of Collioure and Banyuls.' The larger part of these wines is exported. The inferior qualities are consumed in the country, or carried into the neighbouring mountains of the departments on the borders of Spain. The best qualities are bought for Paris, Italy, Brazil, and the United States. The grapes mostly cultivated are the grenache, the mataro, and the erignane, for the red export wines. The pique-pouille noir, and gris, the serret, blanquette, and muscat, for fancy and white wines. The mataro gives the most colour, and the erignane the most fruit. The grenache contains the most saccharine matter and greatest quantity of must. The mixture of all these kinds is the mode generally adopted; still many old vines, including a great variety, are more or less appreciated in the mingling.

"The muscadine vintage is the earliest, and begins at the end of September. A time is chosen when the weather is dry and the grape and soil are still warmed by the sun. If the grapes are not all mature, they are gathered at two different times, and are left at the foot of the tree until they are sufficiently dry and even shrivelled. They are then

trodden and pressed. Some suffer the fruit to dry on the stem before it is gathered. The must of the muscadine grape, after it is pressed, is very saccharine and thick. It is placed in vats to ferment. This wine is often sold and delivered after remaining fifteen or twenty days only in the vat, and without being cleared. In case the owner intends keeping it longer it is racked a month or two after the pressing, when it deposits very largely.

"The commune of Rivesaltes, distant six miles from Perpignan, affords the best muscadine wine. All that is made, about 400 hectolitres, is sold at a high price to the merchants of Lower Languedoc, who use it to increase the aroma of the muscadine wines of their own districts. Some of the growers place it in their cellars, where it ameliorates, and will keep an indefinite time.

"At Rivesaltes, and some other vineyards of the department, particularly at Rodez en Conflent, the grenache grape is alone planted. The must is not left to ferment upon the murk, or, if left, it is not for more than twenty-four hours. The fermentation takes place in the barrel. This wine is much esteemed, and preserves with age great clearness, vinosity, and bouquet. At ten or twelve years old it loses its colour, and takes a fine straw tint or that of a topaz. This class of wines is not sold, as it would be difficult to find a quantity sufficient for general purchase. It is the same with the Macabeo and Malvasia wines, which are made by a few persons only for family consumption. The white wines are made with the blanquette grape, produced from vines wholly of their own kind, or deposited from the black grapes with which they are often mingled in the vineyard. The vintage is completed at one picking, and not, as with the muscadines, at two. There are different qualities of these wines, more or less dry or sweet, the differences proceeding from the nature of the gravelly or quartzose soil in some vineyards, and the argillaceous or calcareous nature of others. About 800 hectolitres, planted with the blanquette grape, produce each on the average about twelve hectolitres.

"The red wines designed for exportation form the most important part of the Roussillon vintage. Although in this part of the south of France the time when the vine buds and blossoms is earlier than in the neighbouring departments of the Aude and the Herault, the vintage is later, and never commences for these wines before the first days of October in the plain, and at Collioure and Banyuls before the 8th.

"In this part of France wine is rarely made in open vats, but generally in large casks, called *tonneaux à portes*. The must from the press with the fruit is introduced by a square opening, closed by a covering having a small hole in the centre, through which the carbonic gas escapes during the fermentation. A large part of this gas is thus condensed in the space between the surface of the must and the cask. The pressure thus arising upon the murk prevents a too rapid fermentation, and preserves the aroma and alcoholic part of the wine. By this means the surface of the murk is kept from contact with the air, which tends to

prevent acidity. The skins of the grapes, too, are constantly submerged, and the extraction of the colouring matter is rendered more complete.

"When the fermentation is thought to have terminated, the wine is drawn off by a cock inserted in the lower part of the cask, and the murk is taken out by the opening already described. The vines of Collioure, Banyuls, and Port Vendres, are situated on the lower slopes of the Pyrenees which terminate in the Mediterranean. The soil is composed of schistose debris. To support the soil upon the steeper slopes, they form their vineyards in terraces. The produce is less than that of the vines growing on the plains. Neither the one nor the other receive dressing. The wines of Collioure and Banyuls are finer and sweeter than those of the plain, and also carry a higher price. They are bought by the merchants of Paris to ameliorate wines otherwise too harsh.

"The wines of the plain are bought in a still larger quantity, the sales taking place shortly after the vintage. These wines are not racked before they are sold, when the sale is not deferred beyond the month of March, at which time the red wines are always racked. In general this is done but once, and not again unless with the wines destined to be long kept. Some growers rack a second time in the March of the second year from the vintage, for which they choose dry weather. The wine is kept in the cask until it becomes *rancio*, the name by which it is generally known in the country, and throughout France. It ameliorates in the cask by age. Care is taken not to move the tartar which forms on the interior of the staves, and diminishes evaporation through the pores of the wood. The red wines remain ten or fifteen years in wood, and at that age carry a golden colour, but even then they will not have attained full perfection. They deposit continually. If they are bottled they preserve their colour better, but as they form a crust and deposit, it is customary to decant them before they come to table. The muscadine wines are bottled at four years old. Age deepens their colour, and it is the same with the other white kinds. The red wines of Roussillon are remarkable for their fine deep colour and alcohol. They have the peculiar advantage that they do not spoil by remaining in casks or bottles but partially filled. The wines of Collioure, Banyuls, and Port Vendres, are distinguished by their richness, aroma, and fineness; when they have attained a certain age, they rival the wines of Andalusia. About sixteen thousand hectolitres are made. The wines of the plain have equal body, but they are drier, and their quality is more varied, according to the difference in the nature of the soil, and the variety of the plant from which they come. The principal growths are those of Torremila, Corneilla de la Rivière, Pezilla, Baixas, Peyrestortes, Rivesaltes, Salces, and Terrets. The wines of Estagel, Latour, and Ussoul, are of less body than the former. There is a wine of this department, strong in body, deep in colour, of an excellent bouquet, and rich, soft taste, which bears great analogy to the wines of Portugal when old, without being as heady. It is called Masdeu, from the name of the vineyard producing it

between Collioure and Perpignan. Masdeu, in the Catalan language, which is the popular language of Roussillon, for a long time a part of Catalonia, in Arragon, signifies 'God's Farm.' It is the property of the bankers so well known, the Messieurs Fois Durand. Between Collioure and Port Vendres there is a small vineyard, which produces the Cosperon wine, a rich, sweet species. The prices of these wines are very variable, and rise, according to their age, very considerably. Red, of good quality, only valued at 24 guineas at the vintage, will be 150 guineas at ten or twelve years old. Kept in bottle, it brings a franc and a half and two francs the bottle. Very old and fine qualities sometimes bring five and even six francs."

Legislation alone caused the change in our relations with France, and the rejection of her delicate for coarser wines. For more than a century its influence has been felt, while attempting to exclude the produce of the vineyards of that country from our markets by differential duties. It is not difficult to trace the seeds of this commercial dissonance to the reign of Charles II., during which the French king (acting under the advice and in agreement with the system of his minister Colbert), having imposed some duties upon English goods, the *lex talionis* was applied.

"It was about the same time (1667) that the French and English began mutually to oppress each other's industry, by the like duties and prohibitions, of which the French, however, seem to have set the first example. The spirit of hostility which has subsisted between the two nations ever since, has hitherto hindered them from being moderated on either side."—*Smith's Wealth of Nations.*

Notwithstanding these checks and discouragements to the French trade, our consumption of Portuguese wines was forced down to 1689; but the revolution which occurred in that year, by widening our political differences with France, had some effect in obliging the people of this country to seek elsewhere for their supplies of that beverage which, in all ages and in all countries, has been so much prized by man.

The notion that in taking wine from France we promoted the benefit of that country exclusively, while Portugal returned the traffic in wine by taking our woollen goods, as if France, if she did not take woollen goods, took nothing in exchange, is a proof how ignorant we then were of the simplest principles of political economy. The following returns show our trade with France before we attached ourselves to Portugal exclusively:

Years.	French.	Portuguese.
	Tuns.	Tuns.
1675	7,495	20
1676	9,645	83
1677	6,789	176
1678	7,212	199
	31,141	478

In 1679 the French wines were prohibited.

Years.	French.	Portuguese.
	Tuns.	Tuns.
1679	3	1,013
1680	1	1,003
1681	...	1,718
1682	...	13,860
1683	...	16,772
1684	...	11,611
1685	...	12,885
	4	58,862

French trade re-opened, 1686.

Years.	French.	Portuguese.
	Tuns.	Tuns.
1686	12,670	286
1687	15,518	327
1688	14,218	448
1689	11,109	579
	53,515	1640

Thus, in four years, the consumption of French wines, on the opening of the trade, nearly equalled in four years that of Portugal in seven.

Prior to that important era our demand for French wines amounted at times to 20,000 tuns per annum.* The war which broke out in 1689 occasioned a stoppage of our supplies from France; and though the peace of 1693 was instantly followed by an increased import of French wines, notwithstanding the action of heavy differential duties, yet the durable commencement of the Oporto trade may be fixed about this period.

Thus the "Farewell to Wine," published in 1693, runs—

> Some claret, boy!—Claret, Sir! Lord, there's none!
> Claret, Sir! why, there's not a drop in town;
> But we've the best *red port*.—What's that you call
> Red port?—A wine, sir, comes from Portugal;
> I'll fetch a pint, &c.

And Prior, who flourished at this time, has frequent allusions to the change in the beverage:

> Else (dismal thought) our warlike men
> Might drink thick port.—*Alma—First Canto.*

And again—

> And in a cottage or a court
> Drink fine champagne, or muddled port.—*Third Canto.*

Again—

> Or if it be his fate to meet
> With folks who have more wealth than wit,
> He loves cheap port.—*Prior's Chameleon.*

But spite of the poets, legislation and economy prevailed, and we accordingly find red port, or some of the other wines of Portugal were

* A tun of wine is *two* pipes.

introdueed; for it must be borue in mind, that formerly the eonsumption of Lisbon white wines was very great.

In 1697, 4774 tuns of Portuguese wines were imported, while only two tuns were brought from Franee, instead of 14,000, or, aeeording to some, 20,000 tuns, but nine years before.

The support which the Stuarts reeeived at the eourt of Franee, and the intrigues of Louis XIV. in Spain, contributed to make the English government eneourage a still closer amity with Portugal. Though the imports of French wines had again risen to 1800 tuns, the averagc in 1701 and 1702, when the war was again reuewed, the supplies diminished, and, to eomplete their exclusiou, the Methuen treaty was signed in Deeember, 1703.

By that treaty it was stipulated that on eondition we admitted the wines of Portugal *at one-third less duty* than those of France, Portugal would reeeive "the woollen cloths and the rest of the woollen manufactures of the Britons till they were prohibited by the laws." Aided by the ten years' war, the effect of the treaty was, that the imports of French wines were reduced to 200 tuns in annual average or thereabouts; but when the Treaty of Peace and Commeree was signed in 1712, the historian says that "a day being appointed by the Commons to deliberate on the Treaty of Commerec, very just and weighty objeetions were made to the 8th and 9th artieles, importing that Great Britain and France should mutually enjoy all the privileges in trading with eaeh other that either granted to the most favoured nation, and that no higher customs should be exacted from the eommodities of Franee than were drawn from the same productions of any other people. The balancc of trade having long inclined to the side of Franee, some duties had been laid on all the productions and manufaetures of that kingdom, so as almost to amount to a total prohibition." "Some member observed, that by the treaty betwcen Englaud and Portugal the duties eharged upon the wines of that eountry were lower than those laid upon the wines of Franee; that should they now be redueed to an equality, the differenec of freight was so great that the French wines would be found mueh eheaper; and as they were more agreeable to the taste of the uation in general, there would be no market for the Portuguese wines in England."—*Smollett's continuation of Hume, year* 1713.

No wonder that those interested in the Portuguese trade found the advanee of the Freneh imports from 116 tuns in 1712 to 2551 tuns in 1713 "a very just and weighty objeetion," espeeially if taken in connexion with what is stated at page 82 of "Original Documents eoneerning the injurious effeets and impolicy of the Portuguese Royal Company at Oporto," published in London, 1813, "that so late as 1715 the Portuguese were supposed to have been ignorant of the art of preparing wine for exportation:" aye, *twelve years after the treaty forcing them upon Englishmen was signed!*

Influeneed at onee by hatred of Franee, disgusted at the treaeherous treatment of our allies, by the then existing government, and a desire to be rid of the ministry, Parliament refused to sanetion that Treaty

of Commerce, and the differential duties were continued in full play. These, in 1726, according to a "Complete View of the British Customs, by Henry Crouch, of the Custom-house, London," consisted of old subsidy, new subsidy, additional duty, cognage, impost, additional impost. French wine, French duty; and though at this distance of time the modes of ascertaining the exact amount to an unpractised person are far from facile, yet the following, it is believed, will be found the sums levied respectively on French and Portuguese wines.

The terms "filled" and "unfilled" were modes of entry. When the merchant took on himself the payment of the duties on the "actual content," as it is now expressed; that is, on the exact quantity the cask contains; the wines were entered "filled." With a view, however, to save very rigid examinations, an allowance of ten per cent. was made for leakage on the voyage; and where this satisfied the merchant, he then entered the wines "unfilled."

1726.—DUTIES PER TUN ON WINES.

FRENCH.	Filled.	Unfilled.	PORTUGUESE.	Filled.	Unfilled.
For sale	£48 11 8	£46 6 8	For sale	£20 7 3	£17 13 9
Private use	49 8 10	46 17 4	Private use	21 5 6	18 9 10
Retailers	49 11 10	48 3 7	Retailers	21 17 6	20 9 2

A trifling difference of duty attached at that time to the uses for which, in the entry at the Custom-house, it was declared the wines were intended to be applied.

It would be easy to show that drawbacks may exercise either a very partial or prejudicial effect, or both; at this period they were constituted so as eminently to favour Portugal, and injure France.

1726.—DRAWBACKS ON WINE PER TUN.

FRENCH.	Filled.	Unfilled.	PORTUGUESE.	Filled.	Unfilled.
For sale	£21 18 3	£19 18 10	For sale	£16 5 4	£14 0 3
Private use	22 6 5	20 6 0	Private use	16 17 6	14 10 11
Retailers	22 11 9	21 3 6	Retailers	17 5 6	15 17 2

Leaving, as follow, the actual amount levied should the wines be exported; and in those days neither docks, nor bonded vaults, nor the warehousing system, which created both, were in existence:

FRENCH.	Filled.	Unfilled.	PORTUGUESE.	Filled.	Unfilled.
For sale	£26 13 5	£26 7 10	For sale	£4 1 11	£3 13 6
Private use	26 17 5	26 11 4	Private use	4 8 0	3 18 11
Retailers	27 0 1	27 0 1	Retailers	4 12 0	4 12 0

The effect of such heavy duties, from the unworthy hatred borne to everything French by the minister of the day, in endeavouring to force a taste for Portuguese wine, by making the people pay heavily for that to which they had been long accustomed, caused much smuggling. In

a report of a committee of the House of Commons relative to the customs in 1733, it appeared that from 1723 to 1725 no less than 4738 hogsheads of wine had been known from informations to have been run in Devon, Dorset, and Hants alone! The habits of a people cannot be changed at the whim of a chancellor of the exchequer, without extensive demoralisation. Port came into use in London before it was relished in the country. An invitation from a friend in Devonshire runs: "If you can leave bowls of Bourdeaux for a pint of port."

None can fail to see why Portugal at that time supplied us with thousands, while France sent only hundreds of tuns. It may suffice to add an account of the duties levied on French and Portuguese wines, from 1786 inclusive; premising it with this single observation, that while we were patronising the wines of Portugal by such discriminating duties, the Portuguese were sagacious enough to perceive that more was done than was needful, and actually imposed an export duty to England only! Not only, then, were we taxed to exclude French wines, but so taxed as to contribute liberally to the Portuguese exchequer.

DUTIES ON FRENCH AND PORTUGUESE WINES FROM 1786 TO 1831 INCLUSIVE, PER IMPERIAL GALLON.

Years.	French.		Portuguese.		Years.	French.		Portuguese.	
	s.	d.	s.	d.		s.	d.	s.	d.
1786.....	8	$8\frac{3}{4}$	4	2	1805 to	13	$8\frac{1}{2}$	9	$1\frac{1}{4}$
1787.....	6	$2\frac{1}{2}$	3	$6\frac{3}{4}$	1813.....	19	$8\frac{1}{2}$	9	1
1788 to	4	6	3	0	1814 to	13	$8\frac{1}{2}$	9	$1\frac{1}{4}$
1795.....	7	$4\frac{1}{4}$	4	$10\frac{3}{4}$	1819.....	13	9	9	$1\frac{1}{4}$
1796 to	10	$2\frac{1}{2}$	6	$9\frac{3}{4}$	1825.....	7	$2\frac{1}{2}$	4	$9\frac{3}{4}$
1798 to	10	$6\frac{1}{2}$	6	$11\frac{1}{4}$	1826.....	7	3	4	10
1801.....	10	$2\frac{1}{2}$	6	$9\frac{3}{4}$	1831.....	5	6	5	6 still
1802.....	10	$7\frac{1}{4}$	7	0				existing, with 3d.	
1803.....	12	$5\frac{1}{2}$	8	3				addition—total	
1804.....	13	$6\frac{1}{2}$	9	0				5	9

From the period of our Revolution, then, to 1831, French wines had no opportunity of competing with those of Portugal in our markets, being burdened by the action of these very heavy discriminating duties.

But it may be asked, how it happens that though these duties were equalised in 1831, no material increase is yet observable in the Parliamentary or other returns of the quantity consumed?

Among other causes, it is thought that the following have contributed to keep the demand contracted, and also to hinder the official returns, which are often but "false facts," from showing any increase.

1st. The very reduction of the duty, by rendering the French wines then most in use less *recherché* as a luxury, because less costly, would and did make them less valued by their former consumers, the rich and great, while as yet no other class of the community was familiarised either with them or any of the other varieties of French

wines, "*respecting many of which, in England, as little is known as of Shiraz.*"

2nd. The alarm which the cholera produced tended materially to diminish the call for French wines, while, by way of compensation, it fell on the brandies of France.

3rd. In importance may be ranked the frequent changes of duty, oftener affecting French than Portuguese wines, in addition to their more onerous character, especially that of 1813, amounting almost to prohibition.

Besides, time must be allowed for inquiry as to the most suitable wines for preparation to suit our markets, as also to prepare them after the choice is made, for only *old* wines are suited to England. Security is an inherent principle in the *right* application of capital; and good wines for our market can only be had after long preparation.

WINES OF THE GIRONDE.

WITH AVERAGE PRICES SINCE THE PEACE AS SOLD NEW BY THE GROWERS.

In three or four years the increase for keep and shipping is 45 additional.

	Good Years.	Middling.	Bad.	Tuns.
MEDOC.	frs.	frs.	frs.	
Lafitte, Latour, Château Margot	3000	1750	400	300
Rausan, Durfort, Lascombe, Leoville, Brannc, Mouton, Larose	2700	1400	350	620
Gorce, Kirwan, Château d'Isson, Malescot, Brown, Ducru, Tichon, Cabarras, Cosse	2400	1200	325	650
Calon, Giscours, Toujet, Loyac, Lacolonie, Lorlagune, Dalcurc, Dubignon, Ferriere, Durand, Palmer, Desmirail, St. Pierre, Dulue, Becheville, Mandari, Montrose, Daux..	1800	1000	...	750
Poutet, Canet, Bedout, Ducasse, Grand Pui, Turinc, Darmaillac, Montpelon, Bataily, Duliard, Croiset, Carnet, Coutanecau, Pop, Pergenson, Tronquoy, Morin, Lebosc	1500	900	300	1,100
Of good St. Estephe, Pouillac, Soussan, Margaux, Cantenac	1000	600	280	6,000
The same, lower quantities	600	400	250	20,000
Common of the same, and Lower Médoc	450	300	220	20,000
Total tuns in all Médoc, ordinary year...	...	...	...	49,420
GRAVES.				
Haut Brion	2700	1600	350	60
Second ditto	1500	700	300	200
Third ditto	800	500	280	3,000
Common	500	300	250	10,000
ST. EMILLON.				
First class	700	400	225	1,000
Second ditto	450	280	200	3,000
PALUS, CÔTES, &c.				
Good Cargo Wine	400	250	180	30,000
Lower ditto	300	200	150	100,000
Produce of Gironde in common years...	...	...	...	961,680

(*continued*)

	Good Years.	Middling.	Bad.	Tuns.
WHITE WINES.	frs.	frs.	frs.	
Yquem, Coulet, Durvi, La Faurié, Binaud, Dayme	1100	700	300	450
Perot, Dert, Guiroux, Baptiste, Carle, Pernaud, Cave, Latour blanche, Duboseq, Riousee, Boucheraud, St. Briec	950	600	300	700
Filhau, Hersoe, Fiton, Emérigon, Darche, Mareilhac, Laffont, Laborde, Monfaillis, Dlles, Duboseq, Brun	600	400	240	427
Ordinary Wines of Sauterne, Barsac, Preignac	450	300	200	1,600
Cérons, Podensac, Fargues, Toulains, Virelade, Arbales, Pujos, St. Pays	500	350	180	2,400
Blanquefort, Villeneuve, Léognau	400	250	170	550
Flas, Landiras, Budos, St. Seve, St. Medard, St. Morillon, Labrede, Castres, St. Croix, Loupiac, Langoirau, Borêche, Tabanac, Paillet, Rioms, Begage, Cadillac	270	200	135	8,000
Cambers, Quinsac, Camblanes, Bouillac, Florac, Jeuac	160	140	110	2,000
Entre deux mers	150	120	90	12,000
Average of White Wines in the Gironde..	...	...	...	28,127

The export of French wines to England diminished as follows:—1828, 948,733 gallons; 1829, 792,171 gallons; 1830, 605,908 gallons; 1840, 239,172 gallons; 1850, 342,223 gallons. This arises from the want of an exchange of goods between the two countries. Cash must be remitted for wine purchases.

No. III.

WINES OF THE SECOND AND THIRD CLASSES—SPANISH.

Wines.	Place.	Character.
Val de Penas	New Castilo	Good body, deeper than Bourdeaux in colour.
Manzanares	Manzanares	An inferior Val de Penas.
Ciudad Real	New Castilo	A tolerable red wine.
Albacete	Ditto	Ditto.
Vino Tinto, Alicant	Valentia	Yellowish red colour, when old called Fondellol.
Mataro	Catalonia	Good bodied and generous.
Torre, Beni Carlos, Santo Domingo, Segorbe, Perales, Viueroz	Valentia	Wines of good body, some of the most esteemed red growths of the country; colour deep.
Hospital	Arragon	Excellent flavour and body, from the Garnacho grape.
Carignena	Ditto	A vino tinto from the Garnacho grape.
Tinto Olivencia	Estramdura	Exeellent red wine, the best in Spain.
Tinto di Rota, or Tintilla	Andalusia	A sweet reddish cordial wine.

(continued)

Wines.	Place.	Character.
Ribidavia	Gallicia	An ordinary red wine.
Chacoli	Biscay	A very harsh austere wine.
Guindre	Malaga	Dark, flavoured with cherries.
Tinto di Malaga	Ditto	Seldom exported a good wine.
Aleyor	Minorca, near Mount Taurus	A red wine, consumed on the island.
Palma	Majorca	A full bodied wine.
Cordova	Andalusia	Good red wines of the country.
Mirando de Ebro	Old Castile	
Carbezon	Valladolid	
Terra del Campo	Old Castile	
Velez Malaga	Malaga	A luscious sweet wine.
Malaga	Ditto	Ditto, with a burnt taste.
Pedro Ximenes	Ditto	Ditto, fine and delicate.
Malaga Xeres	Ditto	Resembling sherry, dry.
Xeres vino seco, pale and brown	Xeres de la Frontera	Pale and brown sherry.
Aboeado	Ditto	A second growth sherry
Huesca	Ditto	A yellowish white wine
Paxareto	Ditto and St. Lucar	A sweet wine of light amber colour.
Moguer	Niebla, Andalusia	Used to lower the sherries at Xeres, of which it is an inferior species.
Negro Rancio	Rota	A sweet wine of a yellow colour.
Montilla	Cordova	A dry wine of good bouquet and flavour.
Borja	Arragon and Tarragona	A luscious wine.
Sau Lucar di Barameda	Andalusia	A light red muscadine.
Manzanilla	Ditto	Dry white, of inferior quality; a *vin du pays*.
Zalonge and Carlon	Ditto	Ditto.
Yepes	New Castile	A well-flavoured red wine.
Fueuçeral	Ditto	A *vin de liqueur*.
Sitges and the Priory	Catalonia	Malmseys of two qualities.
Peralta and Tudela	Navarre	White dessert wines. Peralto is a Rancio when aged.
Pollentia	Majorca	A *vin de liqueur*.
Alba Flora	Minorca	A dry kind of Rhenish.
Vidona	Tho Canaries.	A wine resembling Madeira, of inferior quality.
Verdonia	Ditto	A green wine, not now made.
Palma	Ditto	A rich Malmsey, having a taste of the pine-apple.

No. IV.

The following is a statement of the importation of Spanish wines, from 1700 to 1849.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1700	13,649	0	7	1751	3878	1	5	1802	5,325	1	58
1701	11,184	2	17	1752	2918	2	50	1803	6,871	2	56
1702	7,482	2	30	1753	5175	3	10	1804	6,646	3	29
1703	1,359	0	52	1754	4168	1	30	1805	9,393	2	25
1704	3,020	0	21	1755	4657	2	8	1806	8,264	3	1
1705	3,011	1	9	1756	3669	3	55	1807	7,640	3	28
1706	2,774	1	21	1757	2461	2	12	1808	11,986	2	8
1707	3,277	2	25	1758	4613	1	12	1809	10,939	0	46
1708	3,990	1	35	1759	3233	3	52	1810	10,168	1	21
1709	4,904	1	58	1760	3843	1	50	1811	4,541	3	22
1710	8,591	0	24	1761	4244	3	36	1812	8,068	2	24
1711	6,786	2	7	1762	2611	1	12	1813	Returns lost by fire		
1712	5,690	1	51	1763	3504	3	47	1814	5,635	1	58¼
1713	7,031	3	10	1764	3720	3	8	1815	5,148	0	38
1714	8,479	3	23	1765	3854	1	31	1816	3,392	2	15
1715	9,265	2	7	1766	4633	0	8	1817	4,796	2	7⅛
1716	7,682	0	56	1767	3697	2	38	1818	6,935	1	16⅝
1717	9,106	1	60	1768	3649	3	26	1819	4,363	2	56
1718	6,964	0	12	1769	3970	3	42	1820	4,302	3	48 1-10
1719	6,154	2	62	1770	4194	3	59	1821	4,286	2	22 2-20
1720	6,093	0	52	1771	3777	0	49	1822	5,475	1	14 7-20
1721	9,484	1	3	1772	3012	2	28				
1722	12,063	0	58	1773	3965	0	12		Imperial gallons.		
1723	8,549	2	43	1774	3532	1	28	1823	1,541,919		
1724	7,372	2	62	1775	4419	1	58	1824	1,955,168		
1725	8,762	1	4	1776	3416	3	51	1825	2,531,095		
1726	10,530	0	19	1777	2982	0	5	1826	1,988,964		
1727	6,524	0	19	1778	3764	3	49	1827	2,242,765		
1728	10,255	2	5	1779	2180	2	52		Home consumption.		
1729	9,791	0	25	1780	2902	2	30	1828	1,788,111		
1730	10,427	2	36	1781	1875	1	46	1829	1,668,402		
1731	9,696	0	43	1782	1051	3	15	1830	1,802,027		
1732	9,166	1	23	1783	2149	1	23	1831	2,153,031		
1733	9,092	2	15	1784	2553	3	41	1832	2,161,743		
1734	8,392	3	47	1785	2769	3	8	1833	2,080,099		
1735	9,598	1	16	1786	3139	3	11	1834	2,279,853		
1736	8,667	3	54	1787	4216	0	16	1835	2,230,187		
1737	10,673	2	17	1788	4701	3	7	1836	2,388,413		
1738	9,935	2	28	1789	3999	0	14	1837	2,297,070		
1739	6,028	1	14	1790	4868	3	0	1838	2,497,538		
1740	6,596	0	34	1791	6519	3	11	1839	2,578,997		
1741	249	0	62	1792	5395	0	20	1840	2,500,760		
1742	759	3	26	1793	4363	2	47	1841	2,412,821		
1743	527	3	36	1794	6160	1	25	1842	2,261,786		
1744	1,471	2	18	1795	8088	3	62	1843	2,311,639		
1745	461	1	10	1796	6092	2	18	1844	2,478,360		
1746	505	0	37	1797	2259	0	57	1845	2,554,877		
1747	682	2	42	1798	3571	1	30	1846	2,602,490		
1748	2,706	3	44	1799	6676	3	15	1847	2,372,178		
1749	7,344	2	3	1800	8354	3	15	1848	2,435,427		
1750	5,714	1	1	1801	6335	3	61	1849	2,448,107		

In 1849, the Spanish government, besides the usual mode of importation, permitted English bottles to be introduced into Cadiz, to be filled there and exported, in order to guard against mixtures in Eng-

land, and that the wines might be exported strictly according to the class and price stated. The finest wines come thus into England in cases at fifty shillings per dozen. Soleras, sixteen years in wood, Amontillado Passado at ten, common pale Cortado, or dinner sherry, at thirty shillings, and Manzanilla at forty. The house of Gorman and Co., Port St. Mary and Tower Hill, London, seems to have begun this business, in order that convenience and certainty as to quality and quantity might be attained.

No. V.

Wine imported into Great Britain from the Canaries, from 1785 to 1849.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Imperial Gallons.
1785	65	2	35	1809	1569	0	12	1831	105,875
1786	69	1	44	1810	1563	3	44	1832	97,269
1787	83	2	39	1811	1139	3	51	1833	72,803
1788	118	0	46	1812	2266	2	33¾	1834	68,882
1789	27	2	48	1813	No returns			1835	50,956
1790	139	1	50	1814	2039	0	44½		
1791	77	1	62	1815	2327	3	41½		Home consumption to 5th Jan., 1837.
1792	158	1	27	1816	835	0	3		
1793	57	0	37	1817	1132	2	40		
1794	186	1	24	1818	1762	1	34	1836	51,120
1795	136	0	38	1819	1578	0	54⅜	1837	41,864
1796	122	1	38	1820	1071	1	15 7-10	1838	97,979
1797	1	1	45	1821	892	3	42	1839	35,178
1798	434	1	15	1822	810	0	3 5-20	1840	29,489
1799	...							1841	25,772
1800	55	0	12		Imperial gallons.			1842	21,169
1801	37	1	40	1823	169,312			1843	20,597
1802	137	3	21	1824	247,494			1844	20,650
1803	113	3	61	1825	254,278			1845	20,260
1804	199	1	59	1826	273,558			1846	25,312
1805	229	0	53	1827	417,703			1847	22,921
1806	537	3	47	1828	107,919			1848	20,311
1807	608	0	46	1829	80,808			1849	19,868
1808	1683	1	28	1830	83,822				

No. VI.

SECOND AND THIRD CLASSES—GERMAN.

WINES OF THE RHINE AND MOSELLE.

Wines.	Place.	Character.
Johannisberger	Johannisberg	Grown near the Schloss-Johannisberger, in the list of first growths already given.
Steinberger	Rheingau	A very fine growth.
Rudesheimer: Berg	Rheingau, six leagues from Mayence, facing Bingen; on the hill and slope behind the houses	
Rudesheimer: Hinterhäuser		

(*continued*)

Wines.	Place.	Character.
Laubenheimer	Mayence district	Lighter than Johannisberger; fine bouquet.
Kœsterich	Ditto	A highly prized wine.
Niersteiner	Ditto	Lighter than Johannisberger, but delicate.
Oestricher	Ditto	Ditto.
Liebfrauenmilch	Worms	A good wine, with fine flavour and body.
Zornheimer	The Rhine	Ditto.
Hochheimer	Spire, on the River Maine	Hence the word hock. The first growth is the prime hock wine of the importer. Light, agreeable.—12·08 average of spirit. Some kinds, when new, contain as much as 14·37, according to Mr. Brande.
Graefenberger	Rheingau	Choice wine, of fine flavour.
Gaubischeimer	Near Mayence, the palatinate	Light, agreeable, good bouquet.
Deidesheimer	Ditto	An excellent wine.
Oppenheimer	Ditto	Ditto.
Bodenheimer	Ditto	Ditto, light and delicate.
Nackenheimer	Ditto	An excellent wine, light and delicate.
Brauenberger	Moselle, Treves district	Of first quality.
Scharzberger	Ditto	Ditto.
Graach	Ditto	Ditto.
Zettingen	Ditto	Ditto.
Wehlen	Ditto	Ditto.
Piesport	Ditto	Ditto.
Montagne Vert	Ditto	Second quality.
Causel and Valdraeh	Ditto	Moselle, noted for diuretic qualities.
Rinsport	Moselle, Witlich Canton	Secondary Moselle.
Bacharaeh	Near Mayence	Wine once in high repute.
Becherbaeh	Becherbaeh Canton	Secondary Moselle.
Walporzheimer	Upon the Ahr	Called wine of the Ahr.
Rutz	On the Moselle	Considered one of the Mosello wines.
Steeg	Near Bacharaeh	A light Rhine wine.
Montzingen	Ditto	Inferior ditto.
Bodendorf	Near Bonn	A secondary wine.
Affenbourg Hamen	Near Coblentz	Ditto, a Rhine wine.
Strang	Near Neider Breisig	Ditto.
Elzenburger	Ditto	Ditto.
Alzenburger	Ditto	Ditto.
Lutz	Near Treiss	Ditto.
Maas and Huhn	Niedar Heimbaeh	Ditto.
Stugerboeg	Rhine	Ditto.

(continued)

Wines.	Places.	Character.
Engehoho	On the Nahe	Called wine of the Nahe; secondary wines.
Neiderborg	Ditto	Ditto.
Leinenborn	Ditto	Ditto.
Bangert	Ditto	Ditto.
Rosenheeh	Ditto	Ditto.
Rensberger	Tarbach	Secondary Moselle.
Wurzgarten	Tarben	Ditto.
Amfuhr	Burg, left bank of the Rhine	Ditto.
Rothenberger	Geisenheim	Soft, delicate, prime wine.
Seharlaeh	Mt. Seharlaehberg	Fine flavoured; rich aroma.
Roth	Near Hoehheim, Spire district	Hoek of good quality.
Konigsbaeh	Ditto	Ditto.
Weinheim	Ditto	Ditto.
Forst	Ditto	Ditto.
Ungstein	Ditto	Ditto.
Sehierstein and Narden	Wisbaden	Tolerable wines.
Epstein	Near Frankfort	Middling wines.
Phillipseeh	Ditto	Ditto.
Reichenberg and Wildenstein	Erbaeh	Inferior Rhino wine in quality.
Fènerbaeh and Laufen	Near Fribourg, at Badenweiler	These are considered the best wines of Baden.
Heidelberger and Kleingenberger	Baden	Good wines of the country.
Riehenau Island	Lake of Constanee	Ditto.
Meresberg and Uberlingen	Near the Lake	Ditto.
Cretzingen	Baden	Ditto.
Berghausen and Stellingen	Ditto	Ditto.
Beringfield and Zeil	Bavaria	Inferior wine.
Lindau and Ravenspurg	Ditto	
Sehweinfurt	Ditto	
Liest	Würtsberg	Exeellent wine, Rhenish eharaeter.
Stein	Ditto	Ditto, of a very dear priee.
La Harpe	Ditto	Inferior, but often sold for Stein.
Eseherndorf and Sehalhsborg	Ditto	Inferior to Stein.
Bisehofsheim	Near Hanau, Frankfort	A tolerable wine, resembling Rhenish.
Calmus	Treiffenstein, near Asehaffenbourg	A *vin de liqueur*.
Guben	Saxony	Very poor wines.
Meissen		
Franeonia	Franeonia	A *vin de paille*: aromatie.
Assmannshäuser	The Rheingau, near Rudesheim	Equal to the second class of Burgundy; exeellent body.
Bessingheimer	Lauffen, Wirtemberg	Well tasted, good bouquet; called wine of the Neekar.

(continued)

Wines.	Place.	Character.
Altenahr	Rhine country, left bank	Inferior wine.
Mayschof	Ditto	Ditto.
Rech	Ditto	Ditto.
Ahrweiler	Ditto	Ditto.
Bruch	Ditto	Ditto.
Creutzberger	Ditto	Ditto.
Hoënningen	Ditto	Ditto.
Kesseling	Ditto	Ditto.
Dernan	Ditto	Ditto.
Blischert	Lintz	A tolerable good wine.
Neuwied Blischert	Hesse Darmstadt	Ditto.
Wangen	Bavaria	Poor, though esteemed in the country.
Naumbourg	Saxony	Like fourth class Burgundy; styled *vins agrelets.*
The wine of Blood, Sang des Suisses	Bâle	A good wine, called also the Hospital and Cemetery of St. James.
Erlach	Berne	
Valteline	Made in the Valteline	Remarkable for durability.
Boudry and Cortaillods	Neufchâtel	Equal to third class Burgundy.
Cully	Near Lausanne, and Vevay	Like Rhenish.
Désalés		
La Côte	Between Lausanne and Coppet	Dry wines.
Bernang	St. Gall	Tolerable of the country.
Frangy and Monnetier	Geneva	
La Marque	Martigny	Red and white, and muscadine of tolerable quality.
Coquempin		
Chiavenna	Grisons	Aromatic, white, from red grapes.

No. VII.

The following is the importation of German Wines for the last hundred and forty-nine years.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1700	1430	3	56	1710	434	1	17	1720	529	1	38
1701	789	1	39	1711	514	3	14	1721	444	2	59
1702	693	3	21	1712	387	2	27	1722	406	0	13
1703	748	0	10	1713	378	0	47	1723	491	1	35
1704	667	3	33	1714	103	3	34	1724	332	0	28
1705	441	1	49	1715	502	3	34	1725	269	0	50
1706	331	1	47	1716	476	1	54	1726	397	1	49
1707	568	3	50	1717	418	3	61	1727	509	1	6
1708	584	3	31	1718	495	1	16	1728	476	3	12
1709	544	1	46	1719	418	0	42	1729	616	1	12

(continued)

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1730	480	2	29	1771	164	3	62	1812	23	1	30¾
1731	413	2	41	1772	151	1	8	1813	No Return		
1732	412	1	33	1773	125	0	39	1814	126	3	56½
1733	325	2	56	1774	125	0	37	1815	140	3	18½
1734	367	2	60	1775	160	0	40	1816	121	2	42½
1735	312	0	27	1776	126	3	50	1817	85	0	28½
1736	198	3	2	1777	151	0	28	1818	153	2	62½
1737	312	3	15	1778	111	1	16	1819	120	1	60½
1738	276	3	4	1779	88	3	41	1820	130	1	58 7–10
1739	211	2	32	1780	128	0	54	1821	110	1	45 13–20
1740	221	1	14	1781	94	1	34	1822	115	3	31 6–20
1741	204	2	17	1782	219	1	15				
1742	250	0	16	1783	196	2	2		Imperial Gallons.		
1743	205	1	3	1784	124	3	19	1823	26,332		
1744	219	0	5	1785	133	3	47	1824	27,666		
1745	162	3	33	1786	187	3	52	1825	146,346		
1746	162	2	16	1787	177	1	32	1826	86,023		
1747	180	3	45	1788	138	2	27	1827	79,784		
1748	193	1	18	1789	117	0	6	1828	84,264		
1749	275	1	33	1790	122	1	26	1829	71,641		
1750	272	2	17	1791	128	1	40	1830	66,213		
1751	260	0	48	1792	139	1	1	1831	71,423		
1752	249	1	53	1793	110	2	27	1832	69,568		
1753	242	2	5	1794	129	1	37	1833	38,197		
1754	219	0	0	1795	36	0	1	1834	43,758		
1755	213	3	9	1796	54	0	12	1835	48,696		
1756	198	2	25	1797	48	1	15	1836	59,454		
1757	171	2	33	1798	61	3	56	1837	44,807		
1758	163	1	46	1799	92	3	45	1838	57,584		
1759	182	2	23	1800	19	2	18	1839	63,937		
1760	219	3	53	1801	105	3	45	1840	60,056		
1761	189	1	47	1802	114	2	4	1841	55,242		
1762	186	0	33	1803	158	0	42	1842	53,585		
1763	199	1	0	1804	34	3	2	1843	49,943		
1764	176	1	31	1805	21	0	56	1844	53,865		
1765	230	3	39	1806	103	1	57	1845	62,519		
1766	205	1	25	1807	144	0	59	1846	64,478		
1767	225	0	58	1808	6	2	8	1847	55,774		
1768	176	3	12	1809	43	2	5	1848	44,651		
1769	179	3	31	1810	33	1	9	1849	46,405		
1770	140	2	62	1811	110	0	39				

No. VIII.

SECOND AND THIRD CLASSES.

PORTUGAL WINES.

Name.	Province or Town.	Remarks.
Carcavellos, or Lisbon	Between Oeiras and Carcavellos	Sweetish, white, well known in England.
Bucellas	Near Lisbon	A fiery wine, from brandy being mingled with it: something like Barsac when pure.
Vinho de Termo	Estremadura	A light ordinary wine of the country.
Setuval	Ditto	Two kinds, dry, and muscadine; both good.

(continued)

Name.	Province or Town.	Remarks.
Lamego	Near Coimbra	An inferior kind of Bordeaux.
Alenquer, Monçaou	Estremadura	As the former, but somewhat better in quality.
Santorin	Near Lisbon	An ordinary wine.
Barra a Barra	Near Lavadrio	A good wine.
Colares	Near Cintra	A light port, of good quality.
Pezo da Regoa, Abasas, Villarinho des Freires, Gorvaeus, Alvaeoès do Corgo, Hormida, Guials, Convelinhas, Galafura	On the Douro	Wines of the Douro, of the first and second qualities, or Feitoria and Ramo.
Geropiga	General	Used to minglo with the natural growths—an artificial mixture to assimilate wines to various tastes.

No. IX.

PORTUGAL WINES imported into Great Britain from 1700 to 1849.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1700	7,757	1	47	1737	14,985	1	14	1774	13,773	2	39
1701	7,408	2	31	1738	11,487	2	10	1775	12,658	3	61
1702	5,924	3	60	1739	11,747	1	47	1776	12,755	1	13
1703	8,845	1	60	1740	7,524	3	28	1777	14,482	0	55
1704	9,924	2	49	1741	16,559	1	14	1778	11,871	1	46
1705	8,449	2	59	1742	15,270	0	20	1779	10,127	2	9
1706	7,709	0	23	1743	16,611	2	56	1780	17,107	1	48
1707	9,011	3	44	1744	8,028	3	27	1781	10,963	0	28
1708	9,637	2	24	1745	15,209	2	40	1782	8,063	0	58
1709	7,651	0	19	1746	11,450	2	35	1783	10,908	1	56
1710	6,729	3	18	1747	13,490	2	30	1784	11,434	3	13
1711	7,647	3	54	1748	11,820	1	40	1785	12,171	0	6½
1712	6,483	0	36	1749	13,470	2	29	1786	11,770	1	37
1713	5,975	2	51	1750	9,050	0	60	1787	16,087	0	13
1714	8,965	1	8	1751	10,188	0	47	1788	18,039	3	27
1715	10,721	3	46	1752	10,132	3	4	1789	19,839	1	35
1716	9,105	2	37	1753	12,815	0	58	1790	21,431	3	22
1717	10,340	0	26	1754	10,036	1	9	1791	23,606	0	17
1718	14,617	2	41	1755	11,022	3	34	1792	26,938	3	23
1719	12,171	0	33	1756	7,841	0	20	1793	15,629	2	9
1720	11,152	1	44	1757	11,066	2	24	1794	22,229	3	40
1721	14,086	3	26	1758	10,826	1	27	1795	25,286	2	1
1722	11,580	0	18	1759	11,669	2	44	1796	15,017	2	58
1723	12,336	3	41	1760	10,986	3	33	1797	12,420	2	14
1724	14,222	3	50	1761	9,622	0	10	1798	16,956	3	11
1725	14,403	2	30	1762	12,995	2	33	1799	24,300	1	10
1726	7,772	3	41	1763	12,936	3	39	1800	20,738	0	47
1727	12,945	3	35	1764	13,046	3	59	1801	28,669	1	27
1728	18,208	0	58	1765	13,506	1	34	1802	22,023	0	7
1729	14,371	1	25	1766	13,135	3	37	1803	27,682	3	53
1730	8,279	2	5	1767	12,619	1	39	1804	9,849	2	3
1731	13,122	1	58	1768	14,311	3	36	1805	20,003	0	61
1732	10,939	2	37	1769	13,760	1	17	1806	19,848	1	38
1733	11,162	0	32	1770	11,919	3	18	1807	23,914	1	62
1734	11,723	1	10	1771	12,396	2	7	1808	22,093	0	16
1735	13,838	1	0	1772	11,957	3	52	1809	20,578	1	61
1736	11,367	2	13	1773	11,847	0	44	1810	27,360	0	39

(continued)

	Tuns.	Hds.	Gall.		Imperial Gallons.		Imperial Gallons.
1811	9,260	2	19	1823	2,775,941	1837	2,573,157
1812	15,007	3	28	1824	2,392,557	1838	2,900,457
				1825	4,587,616	1839	2,921,422
1813	Returns lost by fire			1826	2,883,891	1840	2,668,534
				1827	3,063,394	1841	2,387,017
1814	15,498	0	48¾	1828	3,008,808	1842	1,288,953
1815	16,913	0	60	1829	2,416,132	1843	2,517,709
1816	8,215	0	35⅝	1830	2,608,311	1844	2,887,501
1817	14,125	1	36⅘	1831	2,933,176	1845	2,688,084
1818	17,944	2	4⅘	1832	2,762,935	1846	2,699,798
1819	10,311	1	24⅗	1833	2,617,405	1847	2,360,851
1820	10,598	1	24½	1834	2,780,303	1848	2,446,813
1821	12,092	3	13 12-20	1835	2,780,024	1849	2,648,242
1822	14,814	2	20	1836	2,878,359		

TOTAL EXPORT OF WINES FROM OPORTO.

PIPES, FROM 1824 TO 1833, INCLUSIVE.

	England.	Other Parts.	Total.
1824	19,968	6,149	26,117
1825	40,277	170	40,477
1826	18,310	287	18,597
1827	24,207	10,030	34,237
1828	27,932	13,295	41,227
1829	17,832	7,539	25,371
1830	19,333	4,832	24,165
1831	20,171	3,268	23,439
1832	13,573	2,977	16,550
1833	19,432	1,063	20,495

No. X.

WINES OF MADEIRA AND THE AZORES.

Name.	Province or Town.	Remarks.
Malvasia, or Malmsey	Madeira	Rich and sweet.
Madeira	Ditto	A durable, dry wine.
Sercial	Ditto	Ditto, of excellent quality.
Muscatel	Ditto	Not exported; a good wine.
Tinto	Ditto	A red wine, changing in a few years to rich old Madeira in colour.
Figaa do Pereiro Santa Antonio	Ditto	Of inferior kind to the above.
*Vino Passado	Pico in the Azores	A species of Malmsey, of light quality; keeps ill.
*Vino Seco	Ditto	A dry wine, light, not durable.

In 1798, a Portuguese *geira* of land, 240 feet by 120, bore 1000 vine roots, yielding generally a pipe of wine, valued at 12,000 reis, or 3*l.* 7s. 6d. The expense of cultivation was 6000 reis; duties, 1045; contingencies, 945; profit, nearly 4000 reis, or about 1*l.* 2s. 6d. on the fruit for a pipe of wine.

* The importations of the Azores wines are generally included in the list of miscellaneous wines imported.

No. XI.

MADEIRA WINES imported into Great Britain from 1785 to 1849.

	Tuns.	Hhds.	Gall.		Tuns.	Hhds.	Gall.		Imp. Gall.
1785	613	2	26	1808	2790	0	50	1829	218,311
1786	526	2	9	1809	2902	1	44	1830	204,956
1787	578	1	41	1810	2353	1	24	1831	228,221
1788	1074	2	13	1811	1518	0	33	1832	219,102
1789	1174	1	12	1812	2035	2	47½	1833	161,042
1790	1464	3	45	1813	No returns			1834	150,369
1791	1623	2	58	1814	2018	2	50¼	1835	139,422
1792	1252	0	42	1815	1826	0	11½	1836	133,673
1793	1007	3	0	1816	1512	1	3¼	1837	119,873
1794	783	2	10	1817	1270	2	58½	1838	110,294
1795	659	3	52	1818	2316	2	4⅝	1839	118,715
1796	501	1	23	1819	2922	0	28½	1840	112,555
1797	287	3	0	1820	2617	1	61½	1841	107,701
1798	659	0	17	1821	2411	2	44 3-20	1842	65,209
1799	671	0	41	1822	2046	1	59 10-20	1843	95,589
1800	967	2	42					1844	111,577
1801	1777	0	54		Imperial Gallons.			1845	102,745
1802	1497	3	38	1823	450,417			1846	94,580
1803	1564	0	1	1824	489,816			1847	81,349
1804	1075	0	40	1825	541,453			1848	76,938
1805	1101	3	41	1826	569,668			1849	71,097
1806	1605	2	61	1827	308,041				
1807	1981	3	32	1828	258,795				

No. XII.

"METHUEN TREATY." (Page 235.)

Treaty between England and Portugal, signed Dec. 27, 1703.

"Art. 1.—His sacred royal Majesty of Portugal promises, both in his own name and that of his successors, to admit for ever hereafter, into Portugal, the woollen cloths and the rest of the woollen manufactures of the Britons, as was accustomed until they were prohibited by the laws; nevertheless, upon this condition:

"2.—That is to say, that her sacred Majesty of Great Britain shall, in her own name and that of her successors, be obliged for ever hereafter to admit the wines of the growth of Portugal into Great Britain; so that at no time, whether there shall be peace or war between the kingdoms of Great Britain and France, anything more shall be demanded for these wines, by the name of customs or duty, or whatsoever other title, directly or indirectly, whether they shall be imported into Great Britain in pipes or hogsheads, or other casks, than what shall be demanded from the like quantity or measure of French wine, deducting or abating a third part of the custom or duty; but if at any time this deduction or abatement of customs, which is to be made as aforesaid, shall in any manner be attempted and prejudiced, it shall be just and lawful for his sacred royal Majesty of Portugal again to prohibit the woollen cloths, and the rest of the British woollen manufactures.

"3.—The most excellent Lords of the Plenipotentiaries promise and take upon themselves that their above-named masters shall ratify this treaty, and that within the space of two months the ratification shall be exchanged.

"*Given at Lisbon, the 27th of Dec.*, 1703.

"Marchis Alegretensis.

"John Methuen."

"NATURAL EFFECT OF THE MONOPOLY." (Page 237.)

The Oporto Company seem to have possessed astonishing power over the seasons; in that the wines were rarely affected in price by bad or good vintages, but came to England in the same qualities and prices as usual, however they went to other countries. It must be observed, that the Company fixed the time of the vintage often without any regard to the chance the rains setting in, these taking place some seasons a few days sooner than others, and thus injuring the vintage. Whether they delayed it to the last moment, in hopes to obtain a riper and more perfect vintage, or whether any motive more ignoble was the cause, is not clear. In the fine climate of Portugal the hazard from bad seasons must be thought very slight, much less than in Burgundy. Neither in a good season in Burgundy, nor anywhere else, would the first class of wines be some very fine and some very bad. First and third classes would be equally affected by a good or bad season, but this is not the Company's experience in a steady southern climate. The prices of the wine, nevertheless, have nothing to do with the quantity or quality. The following years carry the prices of the better wines per tun, and the character of the year's vintage. The years 1797 and 1798, it must be observed, were years both marked "very bad;" 1799, 1800, and 1801, the same. In the natural course of events, the wine of one year would be materially affected by the bad season preceding, did not monopoly interfere.

Years.	Quality	Prices per Tun of Two Pipes.	Pipes grown.	Pipes imported.
		£ s. d.		
1799	Bad	82 10 0	64,251	48,600
1800	Bad	92 10 0	72,484	41,476
1801	Generally bad, some good	89 3 0	71,658	57,338
1802	Good	71 18 0	46,263	44,046
1803	Good	94 9 0	73,430	55,364
1804	Good	89 10 0	76,655	19,698
1805	Middling	82 9 0	76,550	40,006
1806	Very good	86 9 0	57,869	39,696
1807	Ordinary	84 19 0	54,707	47,828
1808	Middling	94 9 0	56,524	44,186
1809	Middling, but some of high flavour	98 9 0	38,633	41,156
1810	Some good, of full flavour, but light	114 9 0	36,250	54,720
1811	Some good	104 to 110	42,663	18,520
1812	Good, some very fine	133 0 0	55,913	30,005
1813	Ordinary	108 0 0	no ret.	no ret.
1814	Ditto	105 0 0	...	30,996
1815	Very good	93 6 8	...	33,826
1816	Middling	84 0 0	47,819	16,430
1817	Ordinary	84 0 0	37,422	28,250
1818	Middling, some good	96 0 0	53,831	35,888
1819	Ditto, some high flavoured	96 0 0	73,936	20,622
1820	Very good	78 13 4	70,231	21,196

The total exportation of wines from Oporto has not increased of late years. In 1819 there were 13,146 pipes less exported than in 1780, and in 1820 the quantity was 4486 less. In 1849 the exports of port wine to England and Europe had generally averaged for seven years 24,632 pipes annually.

It will be seen that the price of 1800, after no less than three bad

years, is nearly equal to the good years. It is remarked in other countries, that abundant years are, for the most part, years of good quality and good prices, but then they have not the enjoyment of a managing company to balance natural disadvantages.

These and other abuses were often noticed, but the treaty and the Company, twin evils, stifled everything like resistance to their despotism. The Company was always triumphant. The same wine has been shipped to England from Oporto, in virtue of the treaty, at 40*l.* a pipe, and to other countries at 20*l.*! The Board of Trade in vain pointed out the character of this monopoly in 1767.

To exhibit the conduct of the Company as to consistency and the fulfilment of its duties, the following table will be sufficiently explanatory to the reader, showing the qualities and produce of the vintage of the Douro in the years named, and its system of *approval* and *disapproval* of the *same* wines, as might be found convenient. The table illustrates the working of the system (page 249), and explains how bad and good vintages are made of the desired quality:

Produce. Years.	As First Class.	As Second.	As Third.	Repose.	Total.	Deducted from First Approval.	Left Approved.
1843	18,002	15,714	17,166	21,580	72,462	6,002	12,000
1844	21,338	12,754	15,643	16,931	66,666	7,338	14,000
1845	6,585	10,162	16,127	28,332	61,206	1,585	5,000
1846	35,801	18,101½	29,384½	19,471	102,758	15,801	20,000
1847	38,214½	18,708½	24,448	10,356½	91,727½	20,214½	18,000
1848	25,721	21,843½	36,998½	22,552¾	107,115¾	18,721	7,000
1849	12,450	10,909	14,239½	30,030	67,628½	5,450	7,000
Totals	158,111½	108,192½	154,006½	149,253¼	569,563¾	75,111½	83,000

"MODIFICATION OF THE COMPANY'S CHARTER." (Page 243.)

"1. The General Company for the Superintendence and Encouragement of the Vineyards of the Alto Douro shall continue in existence, in as far as the production of wines in that district shall exceed the quantity exported and used for home consumption.

"5. The existing divisions of Feitoria and Ramo shall cease: but the exterior line of demarcation shall be retained, comprehending all those lands which are now planted, or may afterwards be planted with low wines, within the said boundary.

"6. The Directors of the Company shall continue, as heretofore, to take an account of the quantity and qualities of wine produced, and to regulate the tonnage upon it.

"9. The Government, on receiving the Report of the Directors, shall determine, according to the circumstances, both the day for the opening of the fair of the Douro, and the time for its duration; provided always, that the opening be not deferred beyond the second day of February.

"10. The preferences which the law had accorded to the Company, and the legitimate export merchants (negociantes legitimos exportadores), are declared to be abolished.

"11. Every citizen shall be at liberty to purchase wines in the

Alto Douro, and to sell them in the town of Oporto, or wherever else he may find expedient, as well as to distil any wines, whether of his own manufacture, or bought by him.

" 12. The Company shall be obliged to purchase, at the price fixed by the law of the 21st September, 1802, all the wine remaining unsold after the fair of Regoa, that shall be offered to it by the farmers, until the end of March.

" 13. The wine mentioned in the preceding article, in case it be not exported, may be applied to the same purposes as the inferior wines, or sold for distillation.

" 18. Only the Directors of the Company shall have the right to sell and import brandy for preparing and mixing with wines, within the barriers of Oporto, Villa Nova de Gaya, and the line of demarcation of the Alto Douro.

" 30. The present decree shall continue in force for the space of five years, or until the whole or any of the articles contained in it shall be revised or altered in such manner as may be judged fit."

DECREE.

PRESENTED BY JOSE DA SILVA CARVALHO, DECLARING LISBON AND OPORTO FREE PORTS.

" Art. 1. The port of Lisbon is free to all merchant vessels of every country, not at war with Portugal; and every kind of merchandise and articles of commerce will be admitted into it for deposit, wheresoever produced, or under whatsoever flag imported.

" 9. All the provisions of the present decree shall be extended to the city of Oporto, as soon as the measures necessary to facilitate its execution shall be taken.

" The Minister for the Affairs of Finance will take notice hereof, and see to its execution.

(Signed) " Don Pedro, Duke of Braganza.

" *Palace das Necessidados*, 22*nd March*, 1834."

A previous decree, dated April 3, 1833, permitted the import of foreign wines into Oporto by sea or land, upon payment of a duty of 20 per cent. *ad valorem*.

DECREE. (Page 255.)

" Taking into consideration the reports of the Ministers of the Interior and of Finance, and with the advice of the Council of State, I think fit, in the name of the Queen, to decree as follows:

" Art. 1. All the privileges, authorities, prerogatives, and immunities, of whatever nature or denomination, granted to the Wine Company of the Alto Douro, and to the Junta of its administration, from the time of its establishment to this day, are abolished.

" 2. The free disposal of their vineyards and wines is accordingly restored to the cultivators of the Upper and Lower Douro, as to those of all other parts of these kingdoms.

"3. All imposts hitherto laid on the wines of Oporto, with the exception of the *subsidio litterario*, and of the duties on consumption in the city of Oporto and its district, as well as that of 12,500 reis on each pipe exported from the Foz of Douro, are abolished.

"4. The *subsidio litterario* shall be received, as in every other place, by the Receiver General and his deputies.

"5. The duties on consumption shall be received in the same manner, but those on exportation will be paid at the Custom-house of the the city of Oporto, on the manifests which are to be presented by the sellers and exporters under the penalties ordered in such cases.

"6. The company shall convoke the shareholders within a month, to deliberate with them on the settlement of the accounts, the employment of their property, and their interests.

"7. All ordinances and regulations whatsoever contrary to the present decree are abolished, as if they were expressly mentioned. The Ministers of the Interior and Finance are charged with the execution of the present decree.

"Don Pedro, Duke of Braganza.
"Bento Pereira Da Carmo.
"Jose Da Silva Carvalho.

"*Palace das Necessidados, May* 30, 1834."

PORT WINE. (Page 253.)

Extract from a letter in the *Periodica dos Pobres*, dated Regoa, Portugal, October 19, 1843:—

"The grapes in the quintas of the first rank and in the hotter situations (which an English house declared last year were burned up) were this year in the most perfect condition, and produced musts of a very superior kind. The rage for elderberries still continues, and in one quinta alone it is notorious that a purchase of not less than 400 razas was made. Elderberry here is at 3200 per raza, and is of a very inferior quality. An exception, however, to this taste deserves to be mentioned; for a merchant who possesses property here a few days ago ordered all the alders, which his commissary had planted, without his orders to afford shade in the courtyard of his warehouse, to be cut down; and I am informed that the same merchant, who has bought and made wines this vintage, in order to obtain them pure, inserted the following clause in the contract: 'The wines are to be made at the expense of the purchaser, it being, however, understood that the use of elderberry is prohibited, in consequence of the purchasers considering it not only prejudicial to the quality of the wine, but also to the credit of the contracting parties.'"

It continues: "There is a great demand for brandy, and it has reached the price of 74 dolls. 400 rs. per pipe. This is to be attributed to the excessive quantity which it is the present custom to throw into the wine during its first racking, and also to the extensive orders given this year for Geropiga. If the ancient system of making wine were to be reverted to by the merchants in general, we might then hope to

see port wines in the enjoyment of their full eredit; but unhappily, as the general taste still continues for blaek, strong, and sweet wines, which is not the eharaeter of the pure wines, the latter are rejected, and the farmer has no other resouree than to make his wines in such a way as promises to be most luerative to himself."

In a letter from the same writer, dated from Regoa, Oetober 30, 1843, the *Velho Lavrador do Douro*, so signing his printed eorrespondenee, and still eomplaining of the mode in whieh the wines of his eountry are treated, writes:

"I eannot but deelare that the real innovators are eertain English merehants who eome here and make wine after their own fashion, before the right time, and in a wrong way, thus indueing some ineautious farmers to follow their injurious example. I am nearly sixty-one years of age, and am obliged to deelare that never in the eourse of those years have I seen so mueh ignoranee and imprudenee. If those gentlemen would only get rid of some of their pride, they eertainly eould not deny that, if they had aeted in a different manner, they would not have found themselves under the neeessity of distilling or selling for tavern use the produee of those new diseoveries of their 'Progresso' produee, whieh eould not have failed to equal that of the worthy farmers of the Douro, if in the making of it that degree of intelligeuee and eapaeity whieh abounds in my honoured eountrymen had not been wanting."

MADEIRA. (Page 268.)

A deeree relative to Madeira is as follows:—

"1. All sueh goods and merehandise as are admitted to pass through the Custom-houses in Portugal shall have the same privilege at the Custom-house of Funehal, in the island of Madeira.

"2. The Custom-house at Funehal will be regulated in every respeet by the praetiee of the one at Lisbon, exeepting in any thing whieh may be peeuliar to that island.

"3. Its wines will pay a duty of three per eent. when exported to Portugal, and of eight per eent. when to foreign eountries, upon the valuation of sixty milreas per pipe; all other produee of the eountry, sueh as fruits, salt fish, sweetmeats, &e., will only pay one per eent. on exportation.

"4. Eaeh pipe of wine whieh may be ripened by stoving shall be subjeet to a duty of two milreas per month."

N.B. The reason assigned for this is, that the government eonsider the quality of the wines injured by this process, and they wish, by the imposition of this tax, to diseourage its continuanee. The other artieles are not of any general importance.

No. XIII.

SECOND AND THIRD CLASSES.

ITALIAN AND SICILIAN WINES.

Name.	Province or Town.	Remarks.
Lacryma Christi	Naples, Mount Vesuvius	Red rich muscadine, of a fine flavour and perfume.
Syracuse	Sicily	Luscious red muscadine.
Reggio	Naples	Resembling Burgundy.
Baia	Ditto	Ordinary wine.
Mascoli, Sciarra, Macchia, San Giovanni	Sicily, Mount Etua	The best red wines in the island, of excellent body, like the secondary Rhône growths; rare in the island.
Catania	Ditto	Pitchy taste, ordinary wines.
Tormina and Faro	Ditto	Tolerably good.
Orvièto	Roman States	Excellent durable red wines.
Asti	Piedmont	Ditto.
Bianillo and Aleatico	Elba	Good wine of the second class.
Bischillato	Ditto	A durable wine, exports well.
Procanico	Ditto	A *mousseux* wine.
Chianti	Tuscany	A good wine.
Aleatico	Ditto	Resembling the Tinto of Alicant in flavour and bouquet.
Carmignano, Antella, Artiminio, Tizzana, Montali, Lamporecchio, Monte Spertoli, Poncina, Glogoli	Ditto	Good wines of the country.
Val di Marini	Ditto	Ditto.
Naples muscadine	Mount Vesuvius, Lake Averno, Maria de Capoua	A delicate fine coloured wine.
Vino Greco	Ditto	An excellent muscadine.
Carigliano	Naples	Muscadine, flavour of fennel
Bari and Tarento	Ditto	Muscadine and common.
Reggio	Ditto	*Vin de liqueur.*
Baia	Ditto	Good ordinary wine.
Gierace	Near Reggio	Between light French wine and *vin cuit.*
Asprino	Campagna	A *vin de mousseux.*
Fundi	Kingdom of Naples	Good ordinary wine.
Val di Massara: Mazara, Veterano, Coriglioni, Termini, Marsala, Girgenti	Sicily	Of tolerable quality.
Messina, Milazzo, Avola, Vittoria	Ditto	Ditto.
Lipari and Stromboli	Lipari Isles	Ordinary wines and superior muscadine.
Imola	Near Bologna	*Vin cuit mousseux.*
Terni	Near Spoletto	Good wines.

(continued)

Name.	Province or Town.	Remarks.
Farnese	Near Castri	Good muscadine.
Oviéto (white)	Roman States	Muscadine, not durable.
Monte Fiasene	Near the Lago Bolsena	A strong muscadine, finely perfumed and flavoured; of great strength.
Albano	Roman States	Ditto, excellent.
Moscatello, Aleatico, Vino Santo, Vernaccia	Ditto	*Vins de liqueur*, of greater or less merit; not bearing exportation.
Riccia	Ditto	Good wine, but a small quantity made.
Buti	Plain of Pisa	Weak wine.
Monte Pulcino	Tuscany	The most esteemed of the Tuscan muscadines.
Montalcino, Rimeneze, Pont-Eeole, and Santo Stephano	Ditto	Good muscadines.
Vermut	Elba	A cordial wine, prepared with wormwood, &c.
Rio	Ditto	Good muscadine.
Vino Morto	The Veronese	Deficient in spirit and strength.
Vino Santo	Ditto	Good red and white wines.
Bellagio	Lake of Como	Wines of colour and spirit.
Labusca	Mantua	An agreeable wine.
Pavia	Pavia	Both dry and *mousseux*, but very inferior wines.
Monte di Brianza	Milan	Good flavoured wines.
Panocchia, Vigatto, Traverse-tolo, Casola, Avola, Azano	Parma	Ordinary wines of the country.
Val Irdone, Bottola, Ponté d'Al-lolio, Verdetto, Sala del Christo Creta	Placentia	Ditto.
Santo Pretasso, Frescale, Caselle, Lassuraseo, Rugarlo, Castel-lina, Salso, Maggiore, Villa-Chiara, Claretto, Pazolo	District of Borgo Placentia	Inferior wines, some of them *vins de liqueur*, having a disagreeable taste of honey.
Ratrera and Sapolo	Modena	Ordinary wine for home consumption.
Vin Piccolit	Friuli	Resembling Tokay.

No. XIV.

The Sicilian, Fayal, &c., mixed, &c., except wines from the Cape of Good Hope, are included in the following list of miscellaneous and unrated wines imported, of which the varieties are not specified.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1785	62	3	21	1795	13	2	40	1805	20	3	3
1786	73	1	10	1796	95	1	39	1806	156	2	0
1787	54	0	61	1797	37	1	23	1807	161	3	21
1788	42	2	13	1798	27	0	60	1808	746	0	7
1789	27	1	45	1799	16	1	24	1809	535	0	5
1790	15	3	7	1800	18	3	3	1810	1362	2	25
1791	22	2	54	1801	60	2	10	1811	874	3	35
1792	24	3	55	1802	71	3	53	1812	2539	0	42¾
1793	30	0	35	1803	177	2	29	1813	No returns.		
1794	12	0	30	1804	188	0	58	1814	1894	1	5½

(*continued*

	Tuns.	Hds.	Gall.		Imperial Gallons.		Imperial Gallons.
1815	889	1	19	1826	268,853	1838	370,610
1816	897	3	15⅓	1827	223,850	1839	369,417
1817	641	3	35⅔	1828	174,590	1840	383,774
1818	1204	1	12	1829	206,669	1841	401,439
1819	919	2	11⅔	1830	238,909	1842	393,028
1820	1044	3	8⅔	1831	259,709	1843	398,743
1821	1159	3	5	1832	262,850	1844	463,685
1822	755	1	2 4-20	1833	253,084	1845	506,523
	Imperial gallons.			1834	313,732	1846	508,285
1823	176,141			1835	374,549	1847	470,429
1824	265,217			1836	403,155	1848	488,683
1825	331,268			1837	373,458	1849	444,608

No. XV.

SECOND AND THIRD CLASS.

HUNGARIAN, AUSTRIAN, AND SCLAVONIAN WINES.

Name.	Province or Town.	Remarks.
Tokay, Essence, and Ausbruch	Near Mount Tokay, Hungary	See wines of first class.
Tokay, Maslas	Ditto	A secondary Tokay.
Gyængyæsch	Mount Matra, Upper Hungary	Wines, both red and white, much esteemed.
Œdenbourg	Lower Hungary	Ditto.
Meneser	District of Arad, ditto	Red kind, much esteemed for spirit and sweetness.
Meneser-Ausbruch	Ditto	Like Tokay, preferred by some; rich, aromatic, sweet, not cloying.
Erlon	Upper Hungary	Good red and white wines, and an Ausbruch.
Rusth	Lower Hungary	Similar to Œdenbourg.
St. Gyorgy	Near Presburgh	A white wine of excellent quality, somewhat in aroma like Tokay.
Ofen	Near Pesth	Good wine of the country.
Carlowitz	On the Danube, in Selavonia	Resembles Côte Rotie.
Buda	Near the ancient capital	Like Burgundy.
Sexard	Between Buda and Essch	Resembles Languedoc, a good red wine of the country.
Gros Warden	Near Transylvania, the fortress	Ditto.
Schiller	In Sirmian	Strong and sweet, of a red colour.
Wermuth (Palunia, Tropfwermuth)	Ditto	Wines prepared with spices and wormwood.
Glodova, Menos, Gyordk, Paulis...	Menes	Scarcely different from Meneser.
Modeon	Near Presburgh	Excellent wine, resembling Burgundy.
Katschdorf, Grunau, Obernusdorf..	Ditto	Ditto.

(continued)

Name.	Province or Town.	Remarks.
Neustoed, Zschelhæ, Kosrad	Near Buda	Wines like Burgundy and Bordeaux.
Wersitz	In the Bannat	
Jobbagy, Etsey, Sœtveseh		
Weisskirehen	Bannat of Tameswar	Good red wine.
Zips, Arva, Liplow	Ditto	Ditto.
Buokwetz	Croatia	White wine
Vinitza, Toeplitz	Ditto	Ditto; same quality.
Birthalman	Transylvania	Wine of the country, Ausbruch.
Marachina	Sebenico, Dalmatia	A wine highly characterised; not the *liqueur*.
Cotnar	Moldavia	Green in colour, and strong as brandy.
Piatra	Wallachia	Light, rivalling Tokay.
Gravosa	Ragusa	Good country wine.
Semlin	Selavonia	Good red wine.
Syrmia and Posega	Ditto	Both red, and of agreeable flavour, and much spirit.
Podskalehi	Circle of Leutmeritz, Bohemia	Red wines, which will not keep.
Melnick	Circle of Bunzlow	Ditto, like Burgundy.
Poleschowitz	Moravia	Good wines, equal to Hungarian.
Mount Calenberg	Austria	Ordinary wine.
Hoeflein, Kloster Newbourg, Unter Kutzendorf, Kaplenburg, Misdorf, Salmendorf, and Lichtenstein	Ditto	Wines of little note, generally of a green hue, and drank young.
Giberwein	Southerly, near Vienna	A wine that will keep, though of no extraordinary quality.
Spitz	Ditto	Good wine.
Luttenberg	Lower Styria	Good wines, red and white.
Radkersbourg, Arnfels, Windisch, Gonowitz, Kerchenberg	Ditto	Of the next rank to the foregoing.
Sansal, Leitsehach, Piekerne, Stadlberg, Pulsgau, Sanritsch, Raen, Rast, Peittersberg, Wiosel	Ditto	Good wines of the country.
Moettling, Weinitz	Carinthia	Resembling good Italian wines.
Freyenthurn, Wipaeh, Tscheremble, Marzamin	Ditto	Ditto.
Proseeco Antignaua, St. Serf Trieste	Istria	Red and white, sparkling and well flavoured.
Berehetz	An Adriatic island	Red wine, deep coloured, and sweet.
St. Patronio, Petit Tokai, St. Thomas, &c.	At Capy d'Istria, Pirano, Cittanova	Good *vins de liqueur*.
Corregliano	Istria	A good wine, consumed at Venice.
Izeszgard	In the Tolna district	A superior red wine.

No. XVI.

Wines of the Cape of Good Hope, imported from 1801 to 1849, inclusive.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Imperial Gallons.
1801	45	2	57	1818	3,648	0	15 3/5	1833	514,262
1802	15	3	58	1819	1,648	3	19 4/5	1834	525,081
1803	13	1	31	1820	1,925	0	60 1/5	1835	522,941
1804	8	3	8	1821	2,113	2	12 10-20	1836	541,511
1805	0	2	14	1822	2,244	0	2 17-20	1837	500,727
1806	9	0	57					1838	538,528
1807	20	3	42		Imp. Gall.			1839	534,182
1808	178	1	30	1823	843,172			1840	456,773
1809	16	0	36	1824	591,078			1841	441,238
1810	19	3	41	1825	746,925			1842	370,800
1811	8	2	19	1826	356,070			1843	332,369
1812	40	2	56	1827	679,417			1844	349,257
1813	No returns.			1828	699,805			1845	357,793
1814	349	3	55	1829	653,742			1846	365,867
1815	1512	1	4	1830	580,408			1847	293,016
1816	1631	2	21 2/5	1831	537,188			1848	267,922
1817	4218	0	29	1832	540,357			1849	241,845

No. XVII.

Total French, Spanish, Rhenish, and Portuguese Wines imported into Great Britain from 1700 to 1785.

	Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.		Tuns.	Hds.	Gall.
1700	23,502	0	10	1729	25,672	3	50	1758	15,896	1	54
1701	21,443	2	23	1730	19,823	3	31	1759	15,405	2	19
1702	15,725	1	62	1731	24,239	1	58	1760	15,427	3	47
1703	11,092	2	42	1732	21,384	0	11	1761	14,602	3	46
1704	13,811	1	57	1733	21,420	1	57	1762	16,097	0	1
1705	12,070	1	17	1734	21,264	1	47	1763	17,082	3	21
1706	10,973	2	31	1735	24,416	1	28	1764	17,390	1	42
1707	12,962	0	16	1736	20,763	0	10	1765	18,132	1	4
1708	14,380	0	50	1737	26,605	1	38	1766	18,472	0	14
1709	13,338	1	48	1738	22,171	2	1	1767	17,087	3	5
1710	15,869	0	56	1739	18,594	3	28	1768	18,580	0	58
1711	15,481	2	14	1740	15,198	3	60	1769	18,371	2	30
1712	12,677	1	27	1741	17,178	1	3	1770	16,724	0	40
1713	15,937	1	8	1742	16,715	3	58	1771	16,874	2	12
1714	18,747	1	57	1743	17,655	0	34	1772	15,597	2	42
1715	21,751	0	9	1744	16,276	2	60	1773	16,431	3	20
1716	18,834	3	7	1745	16,034	1	34	1774	17,992	1	20
1717	22,260	3	58	1746	12,205	1	11	1775	17,736	0	13
1718	23,875	1	48	1747	14,560	2	32	1776	16,734	0	36
1719	25,510	2	13	1748	25,135	1	16	1777	18,217	2	60
1720	19,141	0	41	1749	21,555	0	35	1778	16,343	0	51
1721	25,263	0	45	1750	15,456	2	11	1779	12,760	2	10
1722	25,470	0	42	1751	14,788	0	2	1780	20,514	2	39
1723	22,415	1	1	1752	13,708	2	25	1781	13,311	3	20
1724	23,075	3	8	1753	18,857	0	20	1782	9,791	0	39
1725	24,722	3	35	1754	14,982	3	50	1783	13,624	1	51
1726	19,331	0	24	1755	16,541	2	22	1784	14,499	0	56
1727	21,064	3	61	1756	12,264	2	18	1785	14,807	1	27
1728	30,045	2	32	1757	14,050	2	30				

No. XVIII.

Wine of all kinds imported into Great Britain, for Home Consumption and Exportation, and Receipts of Revenue thereon, from 1785 to 1849.

Year.	Imperial Gallons.	£ s. d.	Year.	Imperial Gallons.	£ s. d.
1785	3,420,318 5-6	Import and Export.	1817	5,614,622	2,023,720 8 2
1786	*3,409,355		1818	6,139,490	2,241,380 2 7
1787	4,898,225		1819	4,978,600	1,802,097 1 11
1788	5,368,300 5-6		1820	5,019,960	1,818,396 2 5
		For Home Consumption only.	1821	5,016,569	1,797,491 7 10
			1822	4,975,159	1,794,013 11 2
1789	5,814,665	721,518 19 3	1823	5,291,410	1,907,466 13 3
1790	6,492,317	820,562 7 4	1824	5,479,732	1,967,953 13 10
1791	7,658,276	916,769 0 5	1825	†8,655,993	794,009 4 6
1792	8,082,249	1,019,645 3 0	1826	6,450,814	1,270,118 1 6
1793	6,890,910	600,686 5 2	1827	7,262,110	1,426,550 11 9
1794	6,799,220	795,023 19 0	1828	7,580,625	1,506,122 15 4
1795	6,927,121	1,430,722 15 1	1829	7,446,159	1,321,433 19 2
1796	5,732,383	1,159,523 19 7	1830	5,461,635	1,389,668 17 4
1797	3,970,901	1,383,665 12 8	1831	‡6,368,229	1,524,177 6 9
1798	4,760,657	1,372,661 6 7	1832	6,386,687	1,519,643 0 0
1799	4,777,631	1,692,826 12 0	1833	5,965,542	1,629,219 0 0
1800	7,728,871	1,697,213 8 5	1834	6,480,544	1,705,520 0 0
1801	7,006,310	1,922,987 9 11	1835	6,420,342	1,691,522 0 0
1802	6,355,749	1,931,872 19 9	1836	6,809,212	1,793,963 0 0
1803	8,181,466	2,141,356 12 9	1837	6,391,560	1,687,097 0 0
1804	4,840,719	1,814,323 5 5	1838	6,990,271	1,846,056 0 0
1805	4,565,551	2,003,866 8 4	1839	7,000,486	1,849,699 0 0
1806	5,936,235	2,320,428 11 8	1840	6,553,992	1,872,799 0 0
1807	5,922,337	2,334,197 18 9	1841	6,184,962	1,800,127 0 0
1808	6,408,534	2,353,736 12 1	1842	4,815,222	1,409,205 0 0
1809	5,808,087	2,361,113 18 3	1843	6,068,987	1,704,431 0 0
1810	6,805,276	2,513,615 16 3	1844	6,838,684	1,960,738 0 0
1811	5,860,874	2,169,871 6 3	1845	6,736,131	1,787,560 0 0
1812	5,136,490	1,911,352 19 11	1846	6,740,316	1,887,516 0 0
1813	4,718,568	Records burned.	1847	6,053,847	1,700,153 0 0
1814	4,941,663	2,032,840 19 4	1848	6,136,547	1,727,409 0 0
1815	5,968,435	2,095,299 18 0	1849	6,251,862	1,767,516 0 0
1816	4,420,807	1,610,299 5 8	1850	6,448,317	1,824,457 0 0

* Duty reduced in 1786 from 99*l.* 8s. 9 12-20d. per tun in British ships to 50*l.* 16s. 6d. on French wines, and from 49*l.* 14s. 4 16-20d. to 32*l.* 16s. 6d. on Portuguese and Spanish.

In 1803 an additional duty was imposed, when, exclusive of French wines, 1,230,724*l.* was paid upon 49,230 tuns. In 1804 the consumption had fallen to 34,657 tuns, and the duties to 1,026,488*l.*, exclusive of French wines.

† In 1826 the duty was reduced on French wines to 6s. old wine measure, or 7s. 3½d. the imperial gallon. This was followed by a consumption the following three years, that increased the revenue 9000*l.* a year more than it had been at the high duty. Wine, too, was allowed to be imported in packages of any size. The reduction of revenue this year was owing to the allowance for stock on hand.

‡ The duty on French wine further reduced, and as well on all wines, except Cape wine, fixed at 5s. 6d. the imperial gallon, to which 5 per cent. was afterwards added. The alteration of duty on Cape did not take place until 1834, but it was raised 4d. per gallon.

No. XIX.

Wine of all kinds imported into Ireland for Home Consumption, and Receipts of Revenue thereon, from 1789 to 1828.

Year.	Gallons.	£	s.	d.	Year.	Gallons.	£	s.	d.
1789	1,336,253	130,187	8	4	1809	1,264,926	324,889	10	5
1790	1,428,929	138,589	12	7	1810	1,020,275	272,971	12	7
1791	1,430,272	138,010	7	9	1811	894,792	263,136	8	5
1792	1,339,800	129,110	5	6	1812	892,946	278,065	7	4
1793	1,041,932	94,506	18	8	1813	760,004	253,765	1	6
1794	1,374,429	117,839	2	3	1814	636,137	234,736	7	3
1795	2,959,004	264,165	5	6	1815	730,351	293,091	11	3
1796	1,199,129	128,728	9	6	1816	439,602	167,158	2	0
1797	312,212	41,808	3	1	1817	571,596	200,891	11	11½
1798	1,558,265	184,489	12	6	1818	642,206	225,935	10	10½
1799	2,588,166	343,194	13	1	1819	589,854	203,261	19	7
1800	1,024,832	157,594	13	0	1820	508,501	169,421	5	5½
1801	1,245,742	192,663	18	4	1821	642,701	209,006	11	0
1802	2,130,350	348,199	14	9	1822	569,038	188,868	0	6½
1803	1,690,291	282,572	0	2	1823	547,218	180,764	16	11½
1804	1,708,516	327,132	13	10	1824	564,529	185,158	11	4
1805	981,690	251,927	19	3	1825	953,810	140,655	7	1¼
1806	1,053,979	254,102	7	8	1826	822,586	155,161	12	6¼
1807	1,603,278	395,689	2	4	1827	929,619	174,036	16	7½
1808	1,189,716	294,736	14	9	1828	1,003,224	193,928	10	9

Notwithstanding the increase of population nearly to double, 333,029 gallons of wine less were drunk in Ireland in 1828 than in 1789. Between 1791 and 1814 the duty was raised on French wines from 33*l.* 7s. per tun to 144*l.* 7s. 6d. and Portuguese and other wines from 22*l.* 4s. 8d. to 95*l.* 11s. The consequence was that in 1824 the consumption had fallen to 564,529 gallons, and the revenue had only increased to 185,000*l.* with a quadrupled duty.

No. XX.

DUTIES ON WINES. (Page 235.)

In 1272 the duties on wine were two shillings per tun, and the best came to the monasteries. This duty was called butterage. In 1618 wine was thirteenpence the full quart. A pint of Muscatel, sixpence. Two eight gallon rundlets of Claret, sixteen shillings. A pottle of Canary of nine pints, two and sixpence. Three quarts of Sherry were sold for two shillings. Three quarts of white wine three shillings, being the vintner's prices.

Parliamentary papers of some standing, show, that down to the time of the revolution in 1688, or even a year or two subsequently, great quantities of French wine were imported, to the extent in some years of 20,000 tuns. The jealousy towards everything French after that time, induced the laying on of enormous duties by legislators, who were not wise enough to reflect that those wines must have been exchanged for British commodities of one class or another. In 1693 the duties on French wines were increased 8*l.* per tun. In 1697, this duty was made 25*l.* more than on Portugal wines. Instead of two-fifths of all wine imported being French, as in 1669, the high duty had

so driven it out of the market, that in 1784 only a thirty-fifth part was Freneh. In 1697, the duty was 4s. 0½d. on Freneh, and 1s. 8d. on Portuguese wine. From 1778 to 1806, Freneh wine was raised from 6s. 3½d. the gallon to 11s. 5½d. duty, and Portuguese from 2s. 11¾d. to 7s. 7d. From 1770 to 1782, from 60*l.* to 96*l.* per tun were levied, while other wines only paid from 30*l.* to 50*l.* Those duties were reduced in 1786, but during the late war they were raised to 144*l.* 7s. 6d. on Freneh, and 95*l.* 10s. on Portuguese, while German and Hungarian wines paid 118*l.* 13s. in British bottoms. In 1825 these absurd duties, whieh had acted most prejudieially to the revenue, and were unjust to the eonsumer as well as to trade, were reduced, and in 1831 finally settled at a duty of 5s. 6d. a gallon upon all wines exeept Cape. Threepenee was subsequently added, making the whole duty 5s. 9d. The variation in these heavy duties was a proof how little reason and sound sense had to do with the enaetment of them, seeing that whether Freneh, Spanish, Portuguese, or any other wines were imported, they must be paid for in British manufaetures, and what elaim had the manufaeturer of woollen over the maker of eotton goods, bar iron, silk, or steel ware ?

The duty of 1713 was levied from 1726 to 1736, an average of ten years, on 23,109 tuns per annum, Freneh, Spanish, German, and Portuguese wines alone, the population being about 5,000,000; ineluding other wines imported, 24,000 tuns may be reckoned as the importation, whieh would give a revenue of 576,000*l.* Now that of 1786, with duties from 32*l.* to 50*l.*, and 7,000,000 of population, only yielded 721,518*l.* 19s. 3d. Tripling the population of 5,000,000, the aggregate is 15,000,000, and tripling the duty at 24*l.*, we have 1,728,000*l.*, being nearly the revenue from wine in 1849, supposing the eonsumption had inereased only in the same ratio, and the duties remained as in 1726. But the duty of 24*l.* was on French wines; Portuguese paid but 7*l.* 5s. 3d. per tun.

Madeira, until Mareh 3, 1825, paid 9s. 2½d. the imperial gallon; after that time, to 1831, 4s. 10d. Cape paid 3s. 0½d., Freneh wines 13s. 9d. Cape was then reduced to 2s. 3d., and French to 7s. 3½d. Rhenish wines paid 11s. 3½d. until 1825.

TABLE.

SHOWING THE FLUCTUATIONS OF WINE DUTIES AT ONE VIEW, BOTH OF THE CUSTOMS AND EXCISE, FROM 1786.

Years.	Freneh.	Cape.	Madeira.	Portugal.	Spanish.	Rhenish.	Other Sorts.	Highest Receipts Revenue.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£
1786	8 $8\frac{3}{4}$	4 2	4 2	4 2	4 3	4 3	8 $8\frac{3}{4}$	
1787	6 $2\frac{1}{2}$	3 $6\frac{3}{4}$	3 $6\frac{3}{4}$	3 $6\frac{3}{4}$	3 $6\frac{3}{4}$	4 $10\frac{3}{4}$	4 6	848,909
1788	4 6	3 $6\frac{3}{4}$	3 0	3 0	3 0	4 $10\frac{3}{4}$	4 6	1,148,755
1795	7 $4\frac{1}{2}$	5 $5\frac{3}{4}$	4 $10\frac{3}{4}$	4 $10\frac{3}{4}$	4 $10\frac{3}{4}$	6 $9\frac{3}{4}$	6 $4\frac{3}{4}$	1,694,888
1796	10 $2\frac{1}{2}$	7 $4\frac{1}{2}$	6 $9\frac{3}{4}$	6 $9\frac{3}{4}$	6 $9\frac{3}{4}$	8 $8\frac{1}{2}$	8 $3\frac{3}{4}$	1,288,252
1798	10 $6\frac{1}{2}$	7 6	7 $1\frac{1}{4}$	6 $11\frac{1}{4}$	6 $11\frac{1}{4}$	9 1	8 $5\frac{1}{2}$	2,124,808
1801	10 $2\frac{1}{2}$	7 $4\frac{1}{2}$	6 $9\frac{3}{4}$	6 $9\frac{3}{4}$	6 $9\frac{3}{4}$	8 $8\frac{1}{2}$	8 $3\frac{3}{4}$	2,185,661
1802	10 $7\frac{1}{4}$	7 7	7 $1\frac{1}{4}$	7 0	7 0	9 2	8 6	2,280,072

(*continued*)

Years.	French.	Cape.	Madeira.	Portugal.	Spanish.	Rhenish.	Other Sorts.	Highest Receipts Revenue.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£
1803	12 5½	8 3	8 4	8 3	8 3	10 4	8 3	2,423,929
1804	13 6½	9 0	9 1¼	9 0	9 0	11 1¼	9 0	2,141,456
1805	13 8½	9 1¼	9 2½	9 1¼	9 1¼	11 3	9 1¼	2,255,794
1809	19 8½	9 1¼	9 2½	9 1¼	W. 9 1¼ / R. 10 3	11 3	9 1¼	2,686,003
1813	19 8½	3 0½	9 2½	9 1¼	All 9 1¼	11 3	9 1¼	No record
1814	13 8½	3 0½	9 2½	9 1¼	9 1¼	11 3	9 1¼	2,267,578
1819	13 9	3 0½	9 2½	9 1¼	9 1¼	11 3½	9 1¼	2,005,359
1825	7 2½	2 5	4 9¾	4 9¾	4 9¾	4 9¾	4 9¾	934,665
1826	7 3	2 5	4 10	4 10	4 10	4 10	4 10	1,424,326
1831	5 6	2 9	5 6	5 6	5 6	5 6	5 6	1,535,484
1832	...	...	...	...	...	...	...	1,715,812
1850	...	...	...	...	...	...	...	1,824,457

5 per cent. added since to the last-named duty above.

The proportion per cent. which each description of wine bore to the total consumption of all sorts in the years 1847 and 1848 was, French, 6·56 and 5·80 respectively; Portuguese, 39·00 and 39·87; Spanish, 39·18 and 39·69; Madeira, 1·34 and 1·25; Rhenish, 0·92 and 0·73; Canary, 0·38 and 0·33; Sicilian and other kinds, 7·78 and 7·96; the wine of the Cape of Good Hope, 4·84 and 4·37.

The stock of wine in the different ports of the United Kingdom fluctuates from seven or eight millions of imperial gallons to ten millions. The port of London alone has sometimes in bond not less than 50,000 pipes or butts of wine and 40,000 puncheons of foreign spirits.

Nothing can more faithfully show the incapacity of the various judgments of the government than the above fluctuations. At a duty of 5s. 9d. there is a return to the revenue of 1,824,457*l.*, which a duty of 10s. 2d. did not yield, nor of 13s. 9d. much exceed. From 1798 to 1814 were years of war, and the army and navy were largely supplied, and drawbacks allowed which do not figure above. It may be doubted whether 2,267,578*l.* was not the maximum of revenue for home consumption, at the highest duty, the records of that year, 1813, being destroyed, and before Peel's Currency Bill had struck down the value of all property twenty-five per cent. A revenue of 1,824,457 in 1850 is equal, from this last cause alone, to one of 2,267,578 in 1814.

The enormity of the duty is the cause of the diminished consumption of wine. A gallon of foreign brandy will be diluted in drinking with three gallons of water, in all four gallons, paying 15s. duty, worth, with the cost of the article, about 20s. Four gallons of wine pay 23s. 6d. duty, worth, at prime cost, from 3s. 6d. to 20s. the gallon, as the case may be. Now the wine of the highest price will not contain more than ten or twelve per cent. of brandy, nor of any wine more than sixteen or seventeen. The stimulant powers of the spirit and water are, therefore, much greater, at a rate vastly cheaper, even with the enormous duty on foreign brandy. How much more is this the case with

whisky and home-made spirit, at half the duty of the foreign! An *ad valorem* duty on wine is not possible in practice, therefore the duty should be reduced one-half at least. We profess a high regard for public morals, we talk about improving the circumstances of the people, yet in typhus, which ravages England so fearfully, wine, the main remedy, is shut out from the poor, while its liberal administration is necessary. So with the fevers of our marshy districts: wine and bark are the sole dependence, yet the last is forbidden by the price, which is a positive cruelty. The people are encouraged to drink ardent spirit in consequence—but then, the revenue profits!

The consumption of wine in England for the undermentioned years was in proportion to the population:

Year.	Population.	Gallons.		
1700	5,475,000	5,922,504	French, Spanish, Portuguese, and German only.	
1750	6,467,000	3,894,912	Ditto. Duties being raised.	
1801	8,872,980	7,006,310	Of all kinds.	Imperial Gallons.
1811	1,063,676	5,860,874	Ditto.	Ditto.
1821	11,978,875	5,016,569	Ditto.	Ditto.
1832	13,889,675	6,386,687	Ditto.	Ditto.
1841	15,911,725	6,184,960	Ditto.	Ditto.
1851	17,922,768	6,448,517	Ditto.	Ditto.

Scotland for three periods:

Year.	Population.	Gallons.
1801	1,599,068	317,833
1811	1,805,688	340,247
1821	2,093,456	390,000

The duty in 1801 was 1,922,987*l.*, and in 1821, 1,797,491*l.*, with an increase of population in the latter year of 2,290,696. In 1841 the duty was only 1,800,127*l.* It is clear the people of England drank in 1700 three times as much wine in proportion as they do now. The natural consequence has been the increased consumption of spirits. From 1730 to 1830, the consumption of British made spirits increased from 873,840 gallons to 7,732,101, keeping pace with the increase of crime; as if not only the temperature of the atmosphere, but the amount of misery, poverty, and crime, were to be gnaged by alcohol. Ireland, in 1821, paid duty only on 2,649,170 imperial gallons of home-made spirits, but in 1828 on no less than 9,004,539 imperial gallons. In 1849 the amount was reduced to 6,973,333 imperial gallons. Scotland, in 1784, distilled but 268,503 common gallons of spirit; in 1833, 5,988,556. Thus there were made in England, in the year ending January 5, 1850, 9,053,676 imperial gallons; Scotland, 6,935,003; Ireland, 6,973,333. The total being 22,962,012 gallons. It is, therefore, a fact, however much of an anomaly it may appear, that inebriety in this country has increased with the diminution of the wine consumption, and morals as well as health have suffered by the same decrease, and the augmented use of ardent spirit.

The number of bottles of wine consumed daily in England, Wales, and Scotland, in 1821, being the average of three years, calculating four bottles to the old gallon, was:

	England and Wales.	Scotland.	Total.
French	1,848	196	2,044
Cape	5,548	148	5,688
All other kinds	43,592	3236	46,828
	50,980	3580	54,560

The proportion from 1785 to 1794 was 3½ bottles per head. From 1794 to 1814 it fell to three bottles, and from 1814 to 1820 to two bottles. Since that year it has fallen to 1 1-9 bottle per head. Ireland, in 1790, consumed no less than 1,117,556 gallons of wine; and, in 1824, only 476,000 gallons.

The consumption of spirits of all kinds in England, Scotland, and Ireland, in the year ending 5th January, 1850, was:

	Imp. Galls.	Duty.
Home made	22,962,012	£5,793,381
Colonial Rum—Home consumption	3,039,862	
French Brandy—Ditto	2,187,358	
Geneva—Ditto	26,917	
Channel Island spirits—Ditto	16,050	
Other sorts, foreign—Ditto	14,788	
TOTAL	28,246,987	

This would give a consumption of spirit in England not equal to that of Holland, which is 1·39 imperial gallons per head; England, 0·569 gallon per head; Ireland, 0·853 gallon per head; Scotland, 2·647 gallons per head.

The increase in the consumption of foreign spirit was considerable in the United Kingdom in the last six years. In 1844 the total amount of all sorts of foreign spirits retained for home consumption was 3,267,878 imperial gallons, of all kinds. In 1849, ending 5th January, 1850, it was 5,284,975 imperial gallons. Increase in six years, 2,017,097 in foreign spirits.

The difference in home-made spirits in six years has been from 18,864,332 imperial gallons to 22,962,012. Increase, 4,097,680; or about as much proportionally as in foreign spirits. The decrease of the consumption of spirits in Ireland has been very considerable. Prior to the year ending 5th January, 1841 (or the consumption of 1840), the consumption, on the average of four years, was about 11,500,000 imperial gallons. The year ending 5th January, 1842 (or the consumption of 1841), numbered but 7,401,051 imperial gallons; and the year ending 5th January, 1850, gave as consumed only 6,973,333 imperial gallons, a further reduction. Temperance, poverty, or some other cause have wrought there this remarkable change. Scotland has been rather on the increase in the last six years, but it has not been considerable. England has increased about 400,420 gallons, which is inconsiderable, for her amount of population in that time. Of course it is not known in which of the three kingdoms the increased consumption of foreign spirits has occurred, but it is most probably in England.

The duty on spirits is not, like that on wine, equalised. This may be seen by the following statement:

	Per Gall. s.	d.
Brandy, from March, 1846, Geneva, and all other foreign ...	15	0
Rum, duty in England from 1848 to 1850	8	2
Ditto, in Scotland	4	0
Ditto, in Ireland	2	8
Channel Island spirits, from 1845 to 1850—England.....	9	0
Ditto, in Scotland	4	10
Ditto, in Ireland.....	3	6

A more unjust system of taxation can scarcely be conceived, than one marked by the above differences. Why should the Englishman pay more duty than the Scotch or Irish upon a luxury?

The spirit made from grain in Scotland and Ireland is more wholesome than the English. The Scotch is the strongest, being above both rum and brandy. The English is not allowed to be sold pure by the distiller, because, for the convenience of the excise, it must be distilled only in a certain mode and strength above proof. The distiller is, therefore, compelled to sell his product to a person called a rectifier, who reduces and adulterates it at his pleasure. He imitates with the most convenient ingredients, in the clumsiest way, all sorts of foreign spirits. Sometimes these imitations are mingled with the genuine spirit as French brandy, or colonial rum, to increase the quantity, but oftener they are sold as British brandies, or gin, disguised from the genuine spirit with extract of logwood, nitre, burnt sugar, and worse trash, to the detriment of the stomachs of purchasers. Why, like the Scotch and Irish, the English should not have a pure spirit, especially as it is the poor who suffer most from these mixtures, it is difficult to tell. The care of the subject's health, and the interests of morality, have no weight with the government that, while affecting to regard both, takes no opinion upon the subject but of the excise, for whose sole convenience the disgraceful adulterating system continues.

It is worthy, as a matter of record, to state the duties before the last alteration upon ardent spirits:

	Per Gall. s.	d.	Per Cent.
Foreign brandy.....	22	10	500
Geneva.....	22	10	500
Liqueurs	30	4	500
Ireland and Scotland, made spirit, corn	3	8	about 200
Ireland, malt.....	5	0	330
Scotland, malt	4	4	300
England { corn	7	10	500
England { malt	9	2	600

Of the above, the Scotch and Irish are, at least, wholesome and pure spirit; but why such differences of duty? On home-made spirits, perhaps high duties are not amiss, as the article is decidedly pernicious to health and morals.

In 1733, Jamaica rum sold, according to the London prices, from 6s. to 7s. per gallon. In 1849, the very best qualities, from 4s. to 4s. 6d., down to 2s. 5d. and 2s. 6d.; Leeward Islands, 6s. 4d. English spirits were sold in that year from 20*l.* to 26*l.* per tun. Wheat was

then from 22s. to 25s.; barley, from 11s. to 13s. 6d.; oats, from 10s. to 12s. No less than 800,000 quarters of corn were exported that year and the year preceding, between July and July, to Portugal, Spain, France, and Italy, which it was calculated brought a million sterling into the country. Gold in bars, at this time, was from 3*l.* 18s. 1d. to 3*l.* 18s. 2d. In coin, 3*l.* 18s. 3d. Silver standard, 5s. 4d.

No. XXI.

WINE MEASURES USED BY DIFFERENT NATIONS.

		Gallons.	Litres.
Ahm	Hanover	41·095	155·552
Ditto	Rotterdam	39·993	151·380
Alma or meter	Constantinople	1·381	5·227
Almude	Oporto	6·731	25·480
Ditto	Faro	4·896	18·532
Ditto	Lisbon	4·370	16·541
Anker	Copenhagen	9·947	37·655
Ditto	Pernau	10·233	38·736
Ditto	Revel	11·172	42·276
Ditto	Riga	10·333	39·097
Ditto	Rastock	9·562	36·199
Antheil	Hungary	13·350	50·534
Asnée	Lyons	21·809	82·549
Arroba	Canaries	4·245	16·073
Ditto, mayores	Spain (25 old galls. make 6)		
Ditto, menores (12 make 39 old gallons)		4·245	16·073
Ditto	Valencia	3·112	11·786
Ditto	Malaga	4·186	15·850
Barrique	Limoux	31·695	120·000
Ditto	Rhône	31·695	120·000
Ditto	Basses Pyrénées	79·239	300·000
Ditto	Rouen	51·688	195·648
	Rochelle	46·039	174·279
	Nantes	63·405	240·000
	Bourdeaux	60·748	229·937
Barilo	Corfu	18·000	68·133
Ditto	Naples	11·013	41·685
Ditto	Florence	12·042	45·584
Ditto	Bastia	36·986	140·000
Ditto	Genoa	19·610	74·225
Ditto	Leghorn	12·042	45·584
Ditto	Ragusa	20·363	77·075
Ditto	Rome	15·413	58·341
Ditto	Zanto	17·625	66·707
Bareile	Rhône Department	63·390	240·000
Berg Eimer	Ratisbon	23·196	87·812
Both	Germany	126·000	477·036
Botte	France	112·519	426·000
Brenta	Milan	18·865	71·405
Ditto	Verona	19·199	72·337
Ditto	Bergamo	19·223	72·761
Cantara	Alicant	3·052	11·554
Ditto	Arragon	2·724	10·313
Ditto	Oviedo	5·098	19·286
Carabus	Persia	7·500	27·877

(*continued*)

		Gallons.	Litres.
Carga	Barcelona	32·695	123·756
Corba	Bologna	19·493	73·782
Cuba	Abyssinia	0·268	1·016
Cusa	Cyprus	2·633	9·967
Eimer	Breslau	14·670	55·532
Ditto	Dresden	17·870	67·639
Ditto	Erfurt	19·040	72·072
Ditto	Hungary, Higher	19·368	73·316
Ditto	Ditto, Lower	15·030	56·892
Ditto	Leipsic	20·102	76·099
Ditto	Munich	9·750	37·020
Ditto Visiermass	Nüremberg	17·959	67·984
Ditto Schenkmass	Nüremberg	16·761	63·439
Eimer	Prague	16·950	64·167
Ditto	Prussia	18·145	68·690
Ditto, Great	Ratisbon	30·014	113·620
Eimer	Vienna	14·942	56·564
Ditto	Russia	3·250	12·249
Fuder or Stuckfass	Germany	252·000	954·072
Gallon	England	1·000	3·786
Ditto	France	1·008	3·804
Ditto	Ireland	0·942	3·565
Garnice	Poland	0·419	1·590
Gerra	Minorca	3·187	12·063
Hectolitre	France, common gallon	26·419	100·000
	France, imperial gallon	22·001	
Kanne	Sweden	0·691	2·615
Leager	India, Ceylon	150·000	606·080
Lot	Dunkirk	0·608	2·302
Ditto	Lisle	0·545	2·064
Litre	France	3·786	
Mass	Augsburg	0·391	1·479
Ditto	Shaffhausen	0·346	1·311
Ditto	Berne	0·441	1·671
Maas	Heidelberg	0·607	2·300
Ditto	Mayence	0·493	1·868
M. Land	Zurich	0·481	1·823
M. City	Zurich	0·433	1·642
Madida	Brazil	0·700	2·651
Mastello	Ferrara	14·630	55·378
Millerolle	Marseilles	16·990	64·330
Moyo	Gallicia	42·798	161·991
Ohm	Basil	13·215	50·026
Ditto	Sweden	36·700	139·019
Ditto	Dantzic	39·572	149·756
Ditto	Strasburg	12·176	46·093
Orna	Trieste	14·942	56·564
Oxhoft	Oldenburg	65·930	249·558
Ditto	Liban	62·487	236·458
Pint	Scotland	0·447	1·694
Quartlin	Cassel	2·160	8·175

(*continued*)

		Gallons.	Litres.
Quartant	Marne	23·789	90·057
Ditto	Burgundy	27·161	102·822
Quart	Lindau	0·606	2·294
Ditto	La Nievre	30·375	115·000
Quartin	Majorca	7·168	27·131
Rubbio	Turin	2·480	9·389
Ditto	Nice	2·076	7·857
Salma	Messina	23·079	87·360
Secchio	Venice	2·853	10·800
Setier	Geneva	11·948	45·224
Soma	Ancona	22·698	85·917
Stoff	Königsburg	0·378	1·433
Stoopen	Antwerp	0·726	2·748
Stekan	Amsterdam	5·126	19·403
Stubgen	Bremen	0·842	3·187
Ditto	Brunswick	0·969	3·669
Ditto	Stralsund	1·027	3·883
Ditto	Zell	1·025	3·883
Vat	Netherlands	26·419	100·000
Vedro	Russia	3·246	12·289
Viertal	Copenhagen	2·041	7·726
Ditto	Lubec	1·913	7·241
Ditto	Osnaburg	1·290	4·883
Ditto	Wismar	1·913	7·241
Ditto	Frankfort	1·948	7·373
Ditto	Cologne	1·580	5·980
Velte	France	2·017	7·609
Ditto	Bourdeaux	1·896	7·177
Ditto	Bayonne	1·952	7·390
Ditto	Roussillon	1 716	—

Besides the above, which are generally used for wine measures alone, the following are frequently applied to the same purpose:

	Cubic Inches.	Number equivalent to 100 gallons English.	
Azumbre	118⅜	195·14	Used in Spain.
Quartillo	29⅜	784·40	Ditto.
Quartilla	185	124·86	Ditto.
Libra	2⅜	780·40	Ditto.
Cantara	775 5-6	29·78	Ditto.
Schoppen	29⅜	780 40	Used in Strasburg.
Kanne	159⅝	144·71	„ Sweden.
Matero	1375	16·80	„ Italy.
Metaro	577½	40·00	„ Tunis.
Basso	275¾	83·77	„ Verona.
Moggio	6789	3·40	„ Mantua.
Quartillo	349½	66·09	„ Minorca.
Stof	78⅜	293·90	„ Narva.
Aliquer	675⅛	34·18	„ Oporto.
Pint	116	199·14	„ Prague.
Boceale	79⅛	289·47	„ Rome.
Kraska	93⅞	246·07	„ Russia.
Cassise	675	33·24	„ Sicily.
Neessal	44¾	516·20	„ Stettin.

The following national wine measures, in a connected form, will not be misplaced here:

SPAIN.

At Cadiz the cantaro is 8 azumbres, or 32 quartillos. The large arroba is $4\frac{1}{4}$ gallons, the small $3\frac{3}{4}$.

16 arrobas make	1 mayo
27 ditto	1 pipe
30 ditto	1 botta.

The bota is $127\frac{1}{2}$ English wine gallons: the Sanish pipe $114\frac{3}{4}$.

PORTUGAL.

At Figueras the almude is equal to $5\frac{3}{4}$ gallons.
At Vianna to . . . . . $6\frac{1}{2}$ ditto.

21 almudes of Oporto make a pipe; at Lisbon 31 almudes. At Lisbon 2 potes are equal to 12 canadas, or 48 quartillos: 18 almudes make a baril: 52 almudes make 1 tonnelada, or $277\frac{1}{4}$ gallons.

SWEDEN.

2 stoope make	1 kanne	2 oxhoft 1 pipe
16 kannes	1 anker	1 pipo is $124\frac{1}{2}$ gallons.
2 ankers	1 eimer	1 ahm is 41 5-12 ditto
2 eimers	1 ahm	100 kannes are $69\frac{1}{3}$ gallons.
$1\frac{1}{2}$ ahms	1 oxhoft.	

RUSSIA, PETERSBURG.

11 tsharky make	1 krashka	3 vedros make	1 anker
8 krashka	1 vedro	6 ankers	1 oxhoft
40 vedros	1 sorokovy	2 oxhofts	1 pipe.
$13\frac{1}{3}$ bottles	1 vedro.		

The vedro is not quite equal to 3 gallons.

RUSSIA GENERALLY.

	English gallons.	Litres.
1 garnetz	= 0·72123	3·276875
1 vedro	= 2·7048	12·289
1 tschetvriek	= 5·7698	26·215
1 osmine	= 23·079	104·86
1 tschetvert	= 46·159	209·72
1 last	= 738·54	3355·52

GREECE.

Wine is generally sold by the oke, 45 of which make $127\frac{1}{2}$ lb. avoirdupois: hence the oke is 2 lb. 2 oz. 5 drachms of that weight.

ITALY.

At Trieste, 40 boccali are equal to 15 gallons. At Venice the anfora = 4 bigonzi, or 8 mastelli, or 48 secchii, or 192 bozze, or 768 quartuzzi. The anfora is 137 English gallons. At Genoa, 100 pinte = 1 barilla; 2 barilla = 1 mezzarolla, or $39\frac{1}{4}$ gallons English.

GERMANY.

At Hamburgh, the ahm is $38\frac{1}{4}$ gallons, and the fuder $229\frac{1}{2}$. The ahm is 5 tierces; a fass = 4 oxhofts, or 6 tierces. The oxhoft varies in quantity.

HOLLAND, AMSTERDAM.

stoope = $5\frac{1}{2}$ pints.
100 mingles = 32 common or $26\frac{3}{4}$ imperial measure.
Dutch ahm = 41 gallons.

DENMARK.

4 ankers an ahm = $37\frac{3}{4}$ English gallons.
Copenhagen anker = 9·647 ditto.
100 pots = $25\frac{1}{2}$ gallons.
oxhoft = 58 ditto.
fuder = 930 pots.

CYPRUS.

1 jar is 5 Florence bottles.
4 jars a barrel.
4 barrels a load.

Cyprus wines are exported in easks of 70 jars.

CAPE OF GOOD HOPE.

1 flask is $\frac{1}{3}\frac{9}{2}$ gallons, or 4·946 imperial.
1 anker $9\frac{1}{2}$ ditto, 7 $\frac{9}{10}$.
1 aum 38 ditto, $31\frac{3}{5}$.
1 legger 152 ditto, 126 $\frac{7}{11}$.

A pipe is 110 gallons, old measure, or 91 $\frac{7}{11}$ imperial.

It is to be hoped, that, in process of time, a greater uniformity in weights and measures may prevail among civilised nations. Nothing but inexcusable negligence prevented one British imperial gallon and four French litres from being made equal, as the former differs so slightly from the latter. This, at least, would have made uniform the liquid measures of the two most civilised European nations.

The wisdom of reckoning liquid quantities by a medium standard, instead of the old method of tuns, hogsheads, and so forth, need not be commented upon; it is gratifying to see that the Custom-House returns must be are made in imperial gallons only.

No. XXII.

Tuns.	Pipes.	Puncheons.	Hogsheads.	Tierces.	Imperial Gallons.	Gallons.	Quarts.	Pints.	French Litres.
1	2	3	4	6	210	252	1008	2016	954·0720
	1	$1\frac{1}{2}$	2	3	105	126	504	1008	477·0360
		1	$1\frac{1}{3}$	2	70	84	336	672	318·2240
			1	$1\frac{1}{3}$	$52\frac{1}{2}$	63	252	504	238·5180
				1	35	42	168	339	159·0120
					1	1·20	4·80	9·60	4·5444
						1	4	8	3·7860
							1	2	·9465
								1	·4732

STANDARD GUAGE FOR FOREIGN WINES.

	Old Gallons.	Imperial Measure.
Pipe Carcavellos, Lisbon, Bucellas	140	116·63540
Pipe of Port	138	114·96918
„ Madeira	110	91·64210
„ Vidonia	120	99·97320
Butt of Sherry	120	99·97320
„ Mountain	126	104·97186
Hogshead of Claret	57	47·48727
„ Tent	63	52·48593
Ahm, Rhenish	36	29·99196
„ Cape	20	16·66220

The tun is decimally 209·94372, imperial measure.
The pipe, 104·97186.
The puncheon, 69·98129.
The hogshead, 52·48593.
The tierce, 34·99062.
The gallon, ·83311

ENGLISH CUBIC INCHES.

Pint	28⅞	
Old gallon	231	or 3 lb. 5 oz. 6¼ dwt. avoirdupois.
Runlet	4,158	
Barrel	7,276½	
Tierce	9,702	
Hogshead	14,553	
Puncheon	19,279	
Butt	29,106	
Tun	58,212	

The imperial gallon is 277·274 eubie inches, and the Freneh litre 61·0280264 eubie inches English. $378\frac{100}{119}$ litres make 100 old or $83\frac{2}{6}$ imperial gallons English, and $1\frac{00}{99}{}^{3}$ heetolitres make 100 ditto.

No. XXIII.

OLD WINE GALLONS, WITH THEIR EQUIVALENT IN IMPERIAL GALLONS, FROM 1 TO 100.

For eommon purposes, the old gallon multiplied by 5, and divided by 6, will answer very well: the following table will be available where the nieest ealeulation is demanded. The reverse mode will answer for the new gallon. To reduee a larger number to imperial measure may be done thus: suppose 63 gallons old measure, or a hogshead to the new imperial—thus, $63\times{\cdot}83311=52{\cdot}486$, or $63\times\frac{5}{6}=\frac{315}{6}$, or $52\frac{1}{2}$ imperial gallons, very nearly.

1	0·83311	12	9·99733	23	19·16155	34	28·32577
2	1·66622	13	10·83043	24	19·99466	35	29·15888
3	2·49933	14	11·66354	25	20·82777	36	29·99199
4	3·33244	15	12·49665	26	21·66088	37	30·82510
5	4·16555	16	13·32976	27	22·49399	38	31·65821
6	4·99867	17	14·16287	28	23·32711	39	32·49133
7	5·83178	18	14·99608	29	24·16022	40	33·32444
8	6·66489	19	15·82919	30	24·99333	41	34·15755
9	7·49800	20	16·66222	31	25·82644	42	34·99066
10	8·33111	21	17·49533	32	26·65955	43	35·82377
11	9·16422	22	18·32844	33	27·49266	44	36·65688

(*continued*)

45	37·48999	59	49·15354	73	60·81710	87	72·48065
46	38·32310	60	49·98665	74	61·65021	88	73·31376
47	39·15626	61	50·11976	75	62·48332	89	74·14687
48	39·98932	62	51·65288	76	63·31643	90	74·97998
49	40·82243	63	52·48599	77	64·14954	91	75·81309
50	41·65555	64	53·31910	78	64·98265	92	76·64620
51	42·48866	65	54·15221	79	65·81576	93	77·47931
52	43·32177	66	54·98532	80	66·64887	94	78·31242
53	44·15488	67	55·81843	81	67·48198	95	79·14554
54	44·98799	68	56·65154	82	68·31509	96	79·97865
55	45·82110	69	57·48465	83	69·14820	97	80·81176
56	46·65421	70	58·31776	84	69·98152	98	81·64487
57	47·48732	71	59·15087	85	70·81443	99	82·47798
58	48·32043	72	59·98398	86	71·64754	100	83·31109

ROMAN WINE MEASURES WITH OLD ENGLISH GALLONS.

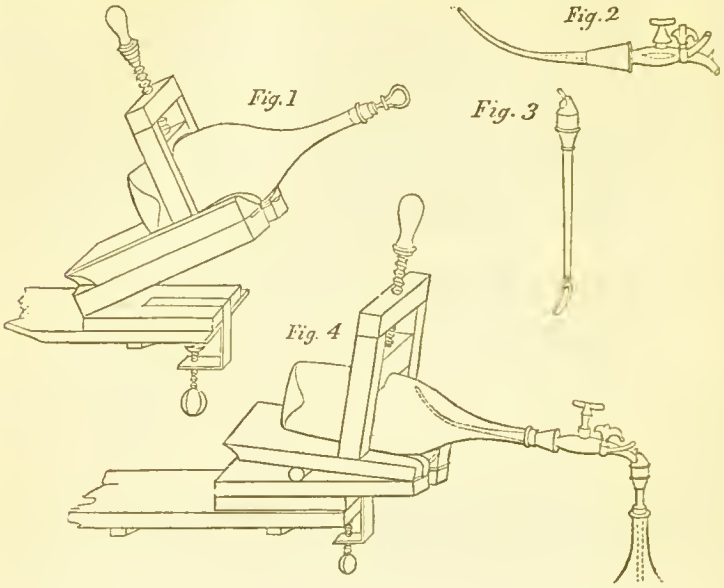
											Decimal old Gallons.
Culeus	1	...	...	...	...	...	...	...	...	...	135·6551
Amphora	20	1	...	...	...	...	...	...	...	...	6·7827
Urna	40	2	1	...	...	...	...	...	...	...	3·3913
Conjius	160	3	4	1	...	...	...	...	...	...	0·8478
Sextarius	960	48	24	6	1	...	...	...	...	...	0·1414
Hernina	1,920	96	48	12	2	1	...	...	...	...	0·0707
Quartarius	3,840	192	96	24	4	2	1	...	...	...	0·0353
Acetabulum	7,680	384	192	48	8	4	2	1	...	...	0·0176
Cyathus	11,520	576	288	72	12	6	3	1·5	1	...	0·0117
Ligula	46,080	2304	1152	288	48	24	12	6	4	1	0·0029

No. XXIV.

INSTRUMENT REFERRED TO, Page 75.

The outline below is very simple. The object is to decant the wine without the smallest disturbance. The instrument being firmly screwed to a table, is elevated or depressed by moving forward or backward a circular bit of wood, the end of which is seen in Fig. 4. The corkscrew and vice, Fig. 1, explain themselves. The tubes which are introduced into the bottles are more complicated. Fig. 3 is little other than a prolonged funnel, the lower end bent as wine funnels are in general. The top is capped, and only a small opening is left for the introduction of Fig. 2. This last being inserted in the bottle to be decanted, as shown in the sketch below; the large end has a forked and curved tube to be placed in the orifice of Fig. 3, over which is a little ring to receive a pointed knot on Fig. 2, and keep it in its place; the cock in the neck of the upper tube is turned, and the air entering by the second fork of the tube curved upwards, fills the vacant space as the wine flows out. A second cock closes the tube which enters the empty bottle, should it be of smaller size than that holding the wine, and danger of an overflow be apprehended. Both these instruments fit the bottles hermetically, by means of their conical shape,

near the upper end, almost close to which, in the lower part of the tube, some small holes are made in the upper side of the tube, to take off the last of the wine in the bottle's neck. See Fig. 2.



No. XXV.

REGULATIONS OF THE CUSTOMS.

Wine must be imported in vessels of 60 tons or upwards.

Wine must be imported, for home consumption, in British ships, or those of the country in which the wine is grown, or of the country from which it is exported.

Wines of France, Spain, Germany, Portugal, Canaries, Madeira, and the Western Islands, imported in foreign ships, to be alien goods, and pay port and town dues.

No abatement to be made on account of damaged wine.

Wine from the Cape must have a certificate of its production.

By the Act *9th Geo.* IV., *cap.* 76, wine is permitted to be imported in any sized package, and the duties on bottles are reduced to one-fourth, and from British possessions to 8d. per dozen.

No. XXVI.

ALCOHOLIC STRENGTH OF WINES AND LIQUORS, AFTER MR. BRANDE, EXCEPT THOSE IN ITALICS.

This is confessed to be an inaccurate statement of the mean alcoholic strength of wines and liquors. It is obvious that there will be a great difference produced by the nature of the fruit and the season, as well as by the fermentation and the alcohol evolved, so that no wine from

the same vineyard will exactly agree for two successive years. Analyses for seven years, and then registering the mean, would be desirable. No doubt many of these wines received additions of brandy, and were not pure. Genuine wine carefully obtained, and thus analysed, would afford something of a test to detect the brandy introduced on importation. Portugal and Sicilian wines are always brandied, some without discretion. We know that amontillado has not more than 13° or 14° of brandy per cent. Sherry is here set down generally at 19° and upwards, when some sorts have alcohol in addition, and others little or none.

	Pure Alcohol per cent.		Pure Alcohol per cent.
Burgundy, average of four samples	14·57	Madeira Malmsey, red	18·40
Ditto, lowest of the four	11·95	Ditto	24·42
Ditto, highest of ditto	16·60	Ditto	23·93
Champagne, four samples; average	12·61	Sercial	21·40
Ditto, still	13·80	Ditto	19·41
Ditto, mousseux	12·80	Average	22·27
Côte Rôtie	12·32	Marsala; average of two specimens	25·09
Frontignan	12·79	Lacryma Christi	19·70
Red Hermitage	12·32	Lissa	26·47
Sauterne	14·22	Ditto	24·35
Lunel	15·52	Syracuse	15·28
White Hermitage	17·43	Etna	30·00
Vin de Grave	13·94	Alcatico	16·20
Ditto, second sample	12·80	Constantia, white	19·75
Barsac	13·86	Ditto, red	18·92
Roussillon	19·00	Cape Muscat	18·25
Ditto, second sample	17·26	Ditto Madeira	22·94
Claret	17·11	Average of three samples	20·51
Ditto	16·32	Shiraz, *white*	19·80
Ditto	14·08	Ditto, *red*	15·52
Ditto	12·91	Tokay	9·88
Average	15·10	Nice	14·63
Grenache	21·24	Raisin wine	26·40
Malaga, 1666	18·94	Average of three specimens	25·12
Ditto	17·26	Currant wine	20·55
Sherry; average of four kinds	19·17	Gooseberry	11·84
Teneriffe	19·79	Orango; average of six samples	11·26
Vidonia	19·25	Elder wine	9·87
Alba Flora	17·26		
Tent	13·20	SPIRITS.	
Hochheimer	14·37	Scotch Whisky	54·32
Ditto	13·00	Irish ditto	53·90
Ditto, old	8·88	Rum	53·68
Rudesheimer, 1800	12·22	Brandy	53·39
Average of ten kinds by Ziz and Prout	11·46	Gin	51·60
Colares Port	19·75	Cider, 9·87 and 5·21 average	7·84
Port; average of seven specimens	22·96	Perry; four samples	7·26
Lisbon	18·94	Mead	7·32
Carcavellos	19·20	Burton Ale	8·88
Ditto	18·10	Edinburgh	6·20
Bucellas	18·49	Dorchester	5·56
Madeira Malmsey	16·40	London Porter	4·20
Ditto, red	22·30	Brown Stout	6·80
		London Small Beer	1·28

A tolerably eorrect guess may be formed on this subjeet by the returns from the wine districts in France of the quantity of the brandy of commerce, extracted from the different wines of that country—the southern wines yielding the most. Burgundy and the wines of the Côte d'Or generally give only one-eighth of brandy in distillation, which brandy eontains only 52·39 of pure alcohol. Henee the return at the above rate must be erroneous. The wines of the Bordelais give a fifth of their weight in the brandy of commerce, and the strong wines of the Drôme a third, or 33 1-3 per cent. This last would be 16¾ pure alcohol. Now the difference in weight between the brandy of commerce and wine in general is not great. The specifie gravity of Burgundy is ·991 ; of Claret, ·992 ; of Hock, ·999; of Champagne, ·962; of Madeira, 1·038; of pure alcohol, ·8293; water being reckoned 1000. The brandy of commerce is ·8371. It is probable that if the foregoing statement were read brandy in place of pure alcohol per cent., it would far exceed the truth. The addition of brandy artificially is another question. The statement only relates to the natural wines, with the brandy which is formed in fermentation.

The following is another statement—upon what authority is unknown. It will be seen that it differs from the former:

A bottle of Port, of 26 oz., seven years in glass, gave 2 oz. 7 dchms. of pure alcohol.
A bottle of Port, 25½ oz., one year in bottle, and two in wood, 2 oz. 6 dchms. of pure alcohol.
Ditto pale Sherry, 25 oz., and three years old, produced, 2 oz. 4 dchms.
Ditto another speeimen, 2 oz. 7 dchms.
Ditto Madeira, 25½ oz., two years old, produeed 2 oz. 5 dchms.
Ditto Cape, 25 oz., one year old, produeed 2¼ oz.
Ditto old Hock, 21 oz., produced nearly 1 oz.
Ditto Brandy, 24 oz., produeed 10 oz.
Ditto Rum, 24½ oz., produeed 9½ oz.
Port wine eontains in the residuum an astringent extract, and malic acid, with much more tartaric acid than Madeira, and Sherry much less than either. The preference given to Port on account of its astringency, is objectionable by reason of its malic acid, causing indigestion and irritability of the viscera. Sherry is better fermented, less obnoxious on that account, and therefore preferable wherever such irritability is observable, or the port-wine drinker feels his stomach out of order, and cannot diseover the cause.

No. XXVII.

The wines of antiquity most commonly met with are as follows. The list is taken from the *Encyc. Metropolitana.*

Abates.
Ἀενγλευκές.
Albanum.
Ἀνθοσμιας.
Antylla.
Argitis.
Ariusian.
Arsynium.
Αὐτοκράτον.
Bythynian.
Byblos.
Calenum.
Carenum.
Caulinum.
Cœcuban.
Chalybon.
Chian.
Circumcisitum.
Chazomenian.
Cnidos.
Corinthian.
Corcyran.
Conn.
Crete.
Cyprus.
Defutum.
Δεοτερίος.
Ἔψήμα.
Falernum.
Helbon, or
Χαλιβώνιον.
Ismarus.
Labici.
Lesbos.
Leucadia.
Lora.
Mamertinum.
Marcotieum.

Maronean.
Massilian.
Mœcenatianum.
Mendean.
Meröe,
Narboneusian.
Naxos.
Nomentauum.
Ὀλιγόφοροι.
Omphacites.
Operarium.
Passum.
Phanean.
Pollœum.
Πολύφοροι.
Pramnian.
Rhodian.
Rhœticum.
Sabinum.
Sapa.
Saprian.
Sciathos.
Scybellites.
Sebennitieum.
Setinum.
Signinm.
Συραίον.
Sporatum.
Statanum.
Surrctine.
Tæniotic.
Tarragona.
Tauromenian.
Θαδασσίτης.
Θάμνα.
Thasian.
Tibenum.
Titucazenum.
Tmolites.
Venefranum.
Vienna.
Zakynthos.

No. XXVIII.

List of some of the various Liquors in use among Modern Nations besides Wine.

Name.	Country.	From what extracted or distilled.
Brandy, *eau de vie*	France	Grapes, potatoes, corn, cider and perry, plums, cherries, residue of the brewhouses, &c.
Aguardiente	Spain	Generally from the grape, and of tolerable quality.
Geneva	Holland	From corn, flavoured with juniper in rectification.
Troster	Germany	Distilled from the murk, fermented with ground rye or barley.
Mum	Brunswick	Fermented wheaten malt, and oatmeal, with fir-rind; lops of fir and beech, and variety of herbs.
Mariskino.....	Zara	Distilled from the cherry.
Rakia.....	Dalmatia	Grape murk, and aromatic herbs distilled.
Goldwasser	Dantzic	Distilled from corn and other substances; sometimes called *eau de vie de Dantzick*, named from having gold leaf floating in it.
Arrack	Goa	Made of the juice of the cocoa-tree.
Arrack	Batavia	Made from rice.
Rosolio	...	Brandy, sugar, cinnamon, and cloves, distilled.
Snaps	Denmark	A brandy, distilled from rye and barley, sold in shops.
Birch wine	Norway	Made of the juice of the birch-tree, boiled and fermented.
Brandy	Sweden	Distilled from corn and the black ant; a powerful spirit.
Ditto	Russia	Ditto, from corn.
Braga.....	...	Ditto, from oatmeal and hops; a white liquor.
Mead	...	Honey, beer-lees, and kalatsch, fermented.
Quass.....	...	Barley-malt, rye-malt, oatmeal, fermented and made acidulous.
Kisslyschtxhy.....	...	Differently prepared with the preceding, being rye-meal and water alone.
Schara	The Calmucks	A beer resembling Braga, but different in colour.
Arraki	Hill Tartars	Prepared from sloes and numerous wild berries.

(*continued*)

Name.	Country.	From what extracted or distilled.
Busa	...	A beer brewed from ground millet.
Raka	Kamtschatka	Distilled from a sweet grass, called Slatkaia-trava, with certain berries to flavour.
Muchumor	...	Made from a red mushroom of the country.
Zythum	Syria	Beer fermented from the grain of the country.
Araki	Egypt	Distilled from grapes.
Carmi	...	A species of beer.
Sherbet	Turkey	Sugar, lemon-juice, apricots or plums, and flavoured with some sweet flower.
Bouza	Nubia	Beer prepared from barley, previously roasted.
Palm wine	...	Prepared, as in other places, from the tree of that name.
Mead	Ethiopia	Prepared from honey, barley, and a root called taddo.
Pitto	Dahomey	Prepared from grain on the coast.
Milaffo	Congo	Prepared from the palm-tree.
Guallo	...	Prepared from Indian wheat.
Pombie	The Caffres	Fermented from millet, or Guinea corn.
Mahayah	Moroeco	Distilled from figs.
Lotus wine	Tripoli, interior	Made from the *Rhamnus Lotus*, or tree of the food of the ancient Lotophagi.
Usnph or Usaph	Barbary	Raisins and water prepared.
Boza	Constantinoplo	Superior to that of Nubia, of similar materials.
Brandy	Persia	Distilled of very good quality, from the grape at Shiraz; sold by weight.
Airen	Tartary	Cows' milk made into a drink like koumiss.
Koumiss	...	Mares' milk fermented; a strong drink called arika is frequently distilled from it.
Mandrin	China	A superior rice wine. The lees distilled yield a brandy called *show-coo*, or *sam-su*.
Tar-a-sun	...	A beer from barley or wheat.
Lamb wine	...	Lambs' flesh, mashed with milk, or with rice, and fermented.
Cha	...	Palm wine.
Rum	India	From jaggory, a kind of molasses from the sugar cane.
Tári	Ditto	Palm wine, when distilled, affords arraek; hence the English word toddy. The wine of the wild date is called *Sindag* in the Carnatic Hindu, in the Telling and Zamul *Callu*.
Mahwah Arraek	...	Made of Madhuca flowers (*bassia butyracea*).
Toddy	Ceylon	Distilled from the cocoa-tree.
Phaur	Nepaul	Distilled from wheat or rice.
Sihee	...	Prepared from the grape, in two modes.
Siheo	Afghanistan	A drink from sheep's milk fermented.
Lau	Siam and the Birmans	Generally prepared from rice.
Soura, or Taury	Nicobar Islands	Fermented palm juice.
Ki-ji, Tan-po, Si-chew	Java	Three different strengths of distilled rice, or of arraek.
Bádek and Brom	Ditto Natives	Rice boiled, and stewed with *razi* or onions, black pepper, and capsicum, made into cakes, and sold as a ferment. Brom is a different preparation of the same substances.
Brum	Sumatra	Nearly the same as the Java brom.

(*continued*)

Name.	Country.	From what extracted or distilled.
Kokemar	Persia	Poppy seeds in decoction, drank hot.
Paniz	Corea	From a grain, supposed to be a coarse kind of rice.
Saeki	Japan	A beer from fermented rice.
Awamuri	Japanese Islands	A drink from corn and different fruits fermented.
Sagwire	Celebes	A strong species of palm wine.
Tuba	Manilla Isles	From a species of palm.
Kava	Friendly Isles	A species of pepper plant chewed by the women, and their saliva collected and diluted with water.
Ava	Otaheite	A root which is bruised or baked before infusion: the liquor very intoxicating.
Y-wer'a	Sandwich Islands	A spirit like whiskey, but less strong; from the *tea* root.
Peach Brandy	United States of America	The peaches are treated as similar fruits in Europe.
Brandewyn	Cape of Good Hope	A bad brandy, distilled from the husks and stalks of the grapes and wine lees.
Rum	The West Indies	Distilled from molasses.
Tafia	Ditto	A poor kind of rum.
Piworree, or Ouycon	Guyana	Prepared from the cassava, resembling beer. Cakes of cassava made about three-quarters of an inch thick, are baked until they are brown throughout. Women then moisten their mouths with a little water, and chew a piece of bread until it is perfectly saturated with saliva. They then strain it in their mouths, and spit out the saliva into a vessel in the centre. When a sufficient quantity of this extract is made, they add water to the extent of 200 gallons or more, leave it to ferment until sour, and then drink it.
Pulque	Mexico	The juice of the agave fermented; a strong spirit is also made from it, called Aguardiente de Magney.
Chica	...	Beer made from maize by the Indians.
Masato	...	A drink from the roots of the manioc, or yucca.
Grape	Brazil	Black sugar, water, and the leaves of the akaja tree to make it intoxicating.
Aipy	...	Prepared from the aipimakakara, a species of manioc.
Kaviaraku	...	The preceding, before fermentation.
Kooi	...	Prepared of the akajèe apple.
Vintro da Batatas	...	Prepared from the batata root.
Brandy	Portugal	Distilled pure and good; also often from damaged figs and raisins; some kinds are bad in quality.
Gin, or British Brandy	England	A pure spirit, distilled from corn, but too fierce to be sold alone, and therefore reduced and rectified, or rather adulterated, with turpentine, juniper berries, nitre, or prunes.
Porter, Beer, Ale, &c.	...	Fermented from malt and hops.
Whiskey	Ireland and Scotland	Distilled from corn, a pure spirit.

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